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THE HUNDRED AND SIXTH  
ANNUAL REPORT UPON

# THE HEALTH OF LEICESTER DURING 1954

E. K. MACDONALD  
O.B.E., M.D., D.P.H., Q.H.P.

# CITY OF LEICESTER

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## HEALTH COMMITTEE

(As constituted 31st December, 1954)

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### Chairman

Ald. F. J. JACKSON

### Vice-Chairman

Dr. W. E. HOWELL

Mr. G. R. ANTILL	Mr. E. E. HAINES	Mr. E. MARSTON
Ald. S. COOPER	Mrs. V. D. HOLMES	Mrs. D. RUSSELL
Mr. F. DUGGAN	Mrs. C. E. JACKSON	Mr. R. W. A. RUSSELL
Miss M. GOODWIN	Mrs. M. N. JACKSON	Mrs. M. M. TROTTER
Mr. F. G. GUMBRILL	Mr. N. L. JACKSON	Mr. G. T. WILLSON

### Co-opted Members

Dr. E. W. HOLYOAK

Mr. H. N. T. STAUNTON

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The Committee meet on the 3rd Friday in each month in the Committee Room, Town Hall, at 3.15 p.m.

### Accounts Sub-Committee

Mr. G. R. ANTILL	Ald. F. J. JACKSON
Mr. F. G. GUMBRILL	( <i>ex-officio</i> )
Mr. E. E. HAINES	Mr. N. L. JACKSON
Dr. W. E. HOWELL ( <i>ex-officio</i> )	Mrs. D. RUSSELL
Mrs. V. D. HOLMES	Mr. R. W. A. RUSSELL
	Mr. G. T. WILLSON

### Health Inspection Sub-Committee

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Dr. W. E. HOWELL ( <i>ex-officio</i> )	Mr. R. W. A. RUSSELL
Mrs. V. D. HOLMES	Mr. G. T. WILLSON
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Dr. W. E. HOWELL ( <i>ex-officio</i> )	Mr. G. T. WILLSON

Co-opted Member : Dr. E. W. HOLYOAK

### Mental Health Services Sub-Committee

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Dr. W. E. HOWELL ( <i>ex-officio</i> )	Mrs. M. M. TROTTER
Mrs. C. E. JACKSON	Mr. G. T. WILLSON

### Co-opted Members

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Mr. H. N. T. STAUNTON



### Maternity and Child Welfare Sub-Committee

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Ald. S. COOPER	( <i>ex-officio</i> )
Miss M. GOODWIN	Mrs. M. N. JACKSON
Mrs. V. D. HOLMES	Mrs. D. RUSSELL
Dr. W. E. HOWELL ( <i>ex-officio</i> )	Mrs. M. M. TROTTER
Mrs. C. E. JACKSON	Mr. G. T. WILLSON

#### Co-opted Members

Mr. H. N. T. STAUNTON	Mr. T. L. WHITE
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Mr. E. E. HAINES	Mr. N. L. JACKSON
Mrs. V. D. HOLMES	Mrs. D. RUSSELL
Dr. W. E. HOWELL ( <i>ex-officio</i> )	Mr. R. W. A. RUSSELL
Mrs. C. E. JACKSON	

### Home Nursing Sub-Committee

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Mr. F. DUGGAN	Mrs. M. N. JACKSON
Mr. E. E. HAINES	Mr. E. MARSTON
Mrs. V. D. HOLMES	

#### Co-opted Members

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	Mrs. J. F. MITCHELL

### Slum Clearance Sub-Committee

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Ald. S. COOPER	( <i>ex-officio</i> )
Miss M. GOODWIN	Mr. N. L. JACKSON
Mr. E. E. HAINES	Mr. E. MARSTON
Dr. W. E. HOWELL ( <i>ex-officio</i> )	Mrs. D. RUSSELL
Mrs. V. D. HOLMES	Mr. R. W. A. RUSSELL
	Mr. G. T. WILLSON

### Buildings and Sites Sub-Committee

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Dr. W. E. HOWELL ( <i>ex-officio</i> )	Mr. R. W. A. RUSSELL
Mrs. C. E. JACKSON	Mr. G. T. WILLSON

## **QUALIFICATIONS AND DUTIES OF SENIOR PUBLIC HEALTH OFFICERS**

As specifically requested in Ministry of Health Circular 1/54, the following details are given :

### **Medical Officer of Health**

E. K. MACDONALD, O.B.E., M.D., D.P.H., Q.H.P.

Exercises oversight and control over all the City's Health Service, advises all Committees of the Corporation on medical matters, and acts as Principal School Medical Officer.

### **Deputy Medical Officer of Health**

A. I. ROSS, M.D., D.P.H.

Acts as Deputy to the Medical Officer of Health, including the School Health Service, and particularly supervises the work of the City Ambulance Service, the City Mental Health Service, the Home Nursing Service, and the control of infectious disease.

### **Medical Officer for Maternity and Child Welfare**

(Miss) E. B. B. HUMPHREYS, M.B., Ch.B.

Responsible for the control of the Maternity and Child Welfare Service, including the Health Visitor, Midwifery, and Day Nursery and Clinic Services, and also the Home Help Service.

### **Tuberculosis Officer**

J. CUTHBERT, M.D., Ch.M., D.P.H., F.R.F.P.S. (Resigned 18/9/54)

C. M. CONNOLLY, B.Sc., M.D., M.R.C.P., D.P.H. (Commenced 20/12/54)

Though primarily appointed by and responsible to the Sheffield Regional Hospital Board as Consultant Chest Physician, and in this capacity, in charge of the Leicester Chest Clinic and of beds at the Leicester Isolation Hospital and Chest Unit, is also responsible, in co-operation with the Medical Officer of Health, for the preventive side of the campaign against tuberculosis.

### **Public Analyst**

F. C. BULLOCK, B.Sc., P.A.Inst.W.E., F.R.I.C.

Responsible for the work of the Public Analyst's Laboratory and for the analysis of and reporting on samples of Foods and Drugs and other matters.

### **Chief Sanitary Inspector**

G. A. HILLER, F.R.San.I., A.M.I.S.E., F.S.I.A.

Responsible for the work of the Sanitary Inspection Department.

### **Chief Clerk**

F. KELLETT, F.C.C.S.

Responsible to the Medical Officer of Health for all the "lay" side of the work of the Health Department, including the non-professional staff, the payment of wages, and the ordering and checking of goods.

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# SUMMARY OF STATISTICS

FOR THE YEAR 1954

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Population (estimated), mid-1954	..	..	..	287,300
Population at Census, 8th April, 1951	..	..	..	285,061
Marriages ..	..	..	..	2,281
Births (corrected)	..	..	..	4,413
Birth-rate (standardised birth-rate = 15.7)	..	..	..	15.36
Deaths (corrected for transferable deaths)	..	..	..	3,240
Death-rate (standardised death-rate = 11.3)	..	..	..	11.3
Deaths under One Year	..	..	..	120
Infant Mortality (per 1,000 Births)	..	..	..	27.2
Maternal Mortality (per 1,000 total births)	..	..	..	0.44
Zymotic death-rate (per 1,000 population)				0.09
Respiratory Disease death-rate (per 1,000 population)				1.08
Cancer death-rate (per 1,000 population)	..	..	..	2.06
Tuberculosis death-rate (per 1,000 population)	..	..	..	0.26
Phthisis death-rate (per 1,000 population)	..	..	..	0.24

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Area of City (in acres)	..	..	..	16,990
Number of Inhabited Tenements, January, 1955			..	88,300
Number of Empty Houses, January, 1955		..	..	781
Rateable Value at 1st April, 1954	..	..	..	£2,255,886
General Rate for the year, 1954-55	..	..	..	25/2 in £

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			England and Wales	County Boroughs	London Adminis- trative County
Birth-rate	..	..	15.2	16.8	17.6
Death-rate	..	..	11.3	12.1	11.7
Infant Mortality (per 1,000 Births) ..	..	..	25.5	29.15	22.1

(Registrar-General's Figures)



*To the Chairman, Lord Mayor, and Members of the  
City Health Committee*

Mr. Chairman, My Lord Mayor, Ladies and Gentlemen,

I have the honour to submit herewith the Annual Report on the Health of Leicester for the year 1954.

This is the twentieth report of the series I have myself presented, as the report for 1935 was the first over my signature. It may be of interest, therefore, to compare the position as it was in 1935 with that which obtained last year. I include here a comparative table of statistics and would like specially to draw attention to the great improvement in the infant mortality rate, the maternal mortality rate, and the mortality from tuberculosis. The figures for 1953 are also included for the sake of comparison :

			1935	1953	1954
Population of City	..	..	261,000	286,500	287,300
Birth-rate	..	..	13.9	16.0	15.4
Number of births	..	..	3,571	4,597	4,413
Infant deaths	..	..	212	114	120
Infant mortality rate	..	..	59.4	24.8	27.2
Death-rate	..	..	11.6	11.2	11.3
Number of deaths	..	..	2,974	3,206	3,240
Maternal mortality rate	..	..	6.2	0.85	0.45
Cancer mortality rate	..	..	1.6	1.9	2.1
Tuberculosis mortality rate	..	..	0.98	0.27	0.26
Number of deaths from tuberculosis			252	76	76

It is also interesting to compare the ages at which deaths occur, and the following table shows the trend between 1935 and 1954.

**Number of Deaths occurring at different ages :**

Age in years		1935	% of total	1954	% of total
0— 5	.. ..	280	9.4	135	4.2
5—15	.. ..	52	1.8	17	0.5
15—25	.. ..	86	2.9	29	0.9
25—45	.. ..	324	10.9	150	4.6
45—65	.. ..	799	26.9	767	23.7
65—75	.. ..	697	23.4	833	25.7
75—	.. ..	736	24.7	1,309	40.4
		2,974	100.0	3,240	100.0

It is obvious that people are now living to a much older age before they die than they did twenty years ago.

In commenting again on the continued low mortality from tuberculosis, I have to report that Dr. J. Cuthbert left Leicester on the 18th September, and was followed by Dr. C. M. Connolly, who started his service here on 20th December. I would like to express my most grateful thanks to Dr. Cuthbert for the great co-operation he extended to us during his time of service in Leicester, and to say to Dr. Connolly that he is most welcome. The relationship between the Health Department and the Tuberculosis Service has been very happy and close. I know it will be maintained.

Although it is perhaps invidious for me in this opening letter to draw attention to particular parts of the report, when the whole report is worth perusal and study, I would like to refer to the report on the Home Help Service which will be found towards the end of Appendix II. The reading of this section of the report will show how great a volume of very excellent work is carried out for the welfare of those people in Leicester who most need help. This report will well repay study.

A new service that became the responsibility of the department during the year was that of the distribution of welfare foods, i.e. dried milk, orange juice, cod liver oil and vitamin tablets. This service was handed over to us by the Ministry of Food on the 28th June, and arrangements were made to see that no difficulty was experienced by the public. These welfare foods are issued from each of the Child Welfare Centres on its day of opening and also from three central distribution points which are open every morning and afternoon of the week. Staff was taken over from the Ministry of Food to staff one of the central depots, and we also received the greatest possible assistance from members of the Women's Voluntary Service. Without the help of these ladies it would have been quite impossible to carry out the volume of work without very heavy expenditure. The department is most grateful to them.

Reference to the report of the City Analyst (Appendix III), interesting and informative as usual, will show that during the year the service moved from Grey Friars to better premises in Salisbury Road. The accommodation thus vacated was partly utilised to house the central staff of the District Nursing Service, and to allow this department to give up the tenancy of the office in University Road.

The Sanitary Inspection Department (Appendix IV) has even more in 1954 than ever before, suffered from staff shortage—so serious a



shortage that the work must suffer—but it is pleasing to note in the first few words of the Chief Sanitary Inspector's report that in spite of all difficulties, "the year under review has been one of considerable achievement".

It is on this note I would like to end this opening letter.

In spite of all difficulties, the work goes on. We are indeed fortunate, Sir, in the way you and your Committee support us and give unstinted encouragement. We are very grateful.

The department is a happy one—I feel I am most fortunate to serve, with them, so great a cause as the Health of Leicester.

I am,

Mr. Chairman, My Lord Mayor, Ladies and Gentlemen,

Your obedient servant,

E. K. MACDONALD, O.B.E., M.D., B.S., D.P.H., Q.H.P.

*Medical Officer of Health*

Health Department,  
Grey Friars,  
Leicester,  
9th August, 1955



# ANNUAL REPORT 1954

## SECTION A

### Statistics and Social Conditions of the Area

#### STATISTICS

##### Population

The Registrar-General estimates the population of the City of Leicester at mid-1954 as 287,300. The estimated mid-1953 population was 286,500, an increase of 800. The increase of births over deaths for the year 1954 was 1,173. Thus once again we have lost more people by emigration than we have gained by immigration.

##### Birth-rate

The number of live births registered during 1954 was :

Males .. .. .	2,208 (2,354)
Females .. .. .	2,205 (2,243)
Total .. .. .	4,413 (4,597)
Birth-rate .. .. .	15.4 (16.0)
Standardised Birth-rate .. .. .	15.2 (15.7)

(Note : The comparative figures for 1953 are those in brackets)

Of the 4,413 total births, 240 (122 males and 118 females) were illegitimate, a slight improvement on the figure for 1953, 268.

##### Stillbirths

There were 105 stillbirths (54 males, 51 females)—an improvement on the figures for 1953, 128 (69 and 59), but not so satisfactory as the 1952 figures, 88, 40 and 48 respectively. I have added a special note this year on the problem of perinatal mortality, which will be found after the next paragraph.

**Infant Mortality**

There were 120 deaths of infants under one year of age (63 males and 57 females), of which 5 males and 8 females were illegitimate. The comparative figures for 1953 were respectively : 114 (71, 43) and 2, 2. The infant mortality rate was therefore 27.2 infant deaths per 1,000 live births. This compares with 24.8 for 1953.

The main causes of infant deaths were (Registrar-General's figures) :

	1954			1953		
	Male	Female	Total	Male	Female	Total
Congenital malformations	14	11	25	12	10	22
Pneumonia .. ..	3	5	8	6	2	8
Bronchitis .. ..	5	3	8	2	—	2
Accidents .. ..	2	2	4	2	3	5
Gastritis, Enteritis ..	2	2	4	2	2	4
Infectious Disease ..	3	1	4	2	1	3
Other Respiratory Disease	1	2	3	1	1	2
Other defined and ill-defined diseases ..	33	31	64	44	24	68
	—	—	—	—	—	—
	63	57	120	71	43	114
	—	—	—	—	—	—

The problem of perinatal mortality is an interesting one and one to which more attention should be given. What is meant by “perinatal” ? This word has not a universally accepted definition, but is used in this report as signifying deaths in the stillbirth category, i.e. occurring after the 28th week of pregnancy and those occurring in the first week of independent life. The word “neonatal” means the first four weeks of life.

The following table shows that over the last thirty years the greatest improvement in mortality has been in the infant mortality rate, but this improvement is not uniform over the whole period of the first year—there has been much less improvement in the first period of independent life than in the remainder of the first year.

		I.M.R.				
		Infantile Mortality	Stillbirth	Neo-natal Mortality	I.M.R. less N-N Mortality	Perinatal Mortality
		Rate	Rate	Rate	Rate	Rate
		(1)	(2)	(3)	(4)	(5)
1924	..	79.0	35.4	28.8	50.2	53.5
1934	..	52.7	45.8	27.5	25.2	65.6
1944	..	39.0	24.1	22.7	16.3	40.1
1954	..	27.2	23.2	17.5	9.7	39.2

Obviously the greatest improvement is in Column 4, and the least in Column 5.

## Marriages

The number of marriages in Leicester in 1954 was 2,281 (2,448).

## Death-rate

The total number (corrected) of deaths was 3,240 (3,206), namely 1,655 (1,626) males and 1,585 (1,580) females.

The death-rate was therefore 11.3, compared with 11.2 for 1953. The standardised death-rate was 11.5 (11.3). The death-rate for England and Wales was 11.3 and for all the County Boroughs 12.1.

Nearly two-thirds (66.1%) of the deaths were in persons over 65 years of age and 1,309 persons reached the age of 75 years and over.

The causes of death will be found in Table 2, from which the following extracts are made :

## Heart and Vascular Disease

Of the 3,240 total deaths, 1,701 (52.5%) were assigned to these causes compared with 51% in 1953.

Of these 1,701 deaths, 869 were males and 832 females ; 1,340 attained the age of 65 years and over.

## Cancer

There were 593 deaths from this cause—285 males and 308 females. These figures compare with 534, 245 and 289 respectively for the previous year. The 1954 figures are very nearly the highest we have ever had.

The following table compares the figures for definite sites of cancer for the last three years :

Site				1954	1953	1952
Stomach	..	..	Males	49	37	44
			Females	35	38	43
Lung and Bronchus			Males	96	73	82
			Females	16	13	11
Breast	..	..	Females	54	59	58
Uterus	..	..		36	27	32
Other	..	..	Males	140	135	178
			Females	167	152	147
				—	—	—
Totals				593	534	595
				—	—	—



**Tuberculosis**

There were 76 deaths from this cause in 1954, the same number as in 1953—then a low record. Of the deaths, 41 were males and 35 females.

In the period of life 25-45 years, nine male deaths were reported, tuberculosis sharing the highest mortality with deaths from motor vehicle accidents—a very unenviable collaboration. Seventeen females died from tuberculosis in this age group, again the greatest cause of mortality, but in this case only one female died as a result of a road accident.

For further details on the problem of tuberculosis, reference should be made to Dr. Connolly’s report in Appendix I.

**Respiratory Disease**

There were 99 deaths from pneumonia (42 males and 57 females), 183 from bronchitis (115 males and 68 females) and 29 from other respiratory diseases (15 males and 14 females).

**Other Causes of Death**

	Males	Females	Total	1953
Diabetes .. ..	3	12	15	24
Peptic ulcer .. ..	28	7	35	26
Kidney disease ..	16	7	23	48
Pregnancy and childbirth	—	2	2	4
Motor accidents ..	22	12	34	33
Other accidents ..	35	51	86	68
Suicide .. ..	19	23	42	46

Details will be found in Table 2

**INFECTIOUS DISEASE—MORBIDITY AND MORTALITY**

**Measles**

1954 was a very light year for measles, only 285 cases being notified. In each of the previous three years nearly 4,000 cases occurred on an average. This high annual incidence is unusual, measles tending to recur, not every year, but every alternate year. 1954 was, therefore, true to normal pattern, and an epidemic is expected to occur in 1955.

There were no deaths.

**Scarlet Fever**

250 cases were notified, much the same as in the previous year, and again no death.



Whooping Cough

877 cases occurred and no death—a somewhat better record than in 1953, when there were 1,096 cases with two deaths.

It is hoped very shortly to offer to the parents of Leicester vaccination against whooping cough. This will be in the form of a joint scheme of protection against both whooping cough and diphtheria.

Diphtheria

No case occurred and, of course, no death.

The last case of diphtheria was notified in Leicester in 1952 and no death has occurred since 1948. This is truly a wonderful achievement and one in which the greatest pride can be felt. When we remember the period less than twenty years ago when diphtheria was commonplace, and terrible mortality occurred (for example, in 1938, 701 cases occurred and there were 33 deaths), we can only be thankful for the discovery of protection by immunisation. But the standard of protection must be kept up, and parents must not neglect this so simple and yet so efficient a safeguard.

Diphtheria Immunisation

	Under 5	Over 5	Total
Number of children immunised in 1954.. .. .	2791 (3140)	767 (444)	3558 (3584)
Number of children given "boosting" dose in 1954 .. .. .	646 (418)	2416 (1805)	3062 (2223)

(Note : 1953 figures in brackets)

Vaccination

Number of Persons Vaccinated (or Re-vaccinated) during 1954

Age at Date of Vaccination	Under 1	1	2 to 4	5 to 14	15 or over	Total
No. vaccinated ..	84 (147)	114 (120)	53 (52)	56 (45)	181 (195)	488 (559)
No. re-vaccinated ..	Nil (2)	Nil (5)	8 (7)	14 (17)	256 (316)	278 (347)

(Note : 1953 figures in brackets)

## Poliomyelitis

Fortunately the incidence of this disease was again low, there being eight confirmed notifications—four paralytic and four non-paralytic—and no deaths. The comparable figures for the previous four years are :

1953—19 cases, 15 paralytic, 1 death.

1952—4 cases, 3 paralytic, no death.

1951—13 cases, 9 paralytic, 1 death.

1950—79 cases, 42 paralytic, 4 deaths.

The cases arising in 1954 are summarised in the following table :

Month	Paralytic					Non-paralytic				
	Ages					Ages				
	0-4	5-14	15-24	25+	Total	0-4	5-14	15-24	25+	Total
March ..	—	1	—	—	1	—	—	—	—	—
August ..	—	—	—	—	—	1	—	—	—	1
September	—	—	—	1	1	—	1	—	—	1
October ..	—	1	—	1	2	—	1	1	—	2
Totals	—	2	—	2	4	1	2	1	—	4

No evidence could be found of spread from one case to another.

## Sonne Dysentery, 1954

As in so many other parts of the country, dysentery was epidemic in Leicester in 1954. It started in a nursery school in the North of the City in February and about the same time we became aware of the infection in a housing estate nearby. The weekly number of cases rose quickly to a total of 133 and slowly decreased until August, after which few occurred. All positive cases were found to be infected with *Shigella sonnei*.

As was done last year, to give a better indication of the type of infection, the cases have been sub-divided as follows :

### A. Clinical dysentery (i.e. with symptoms) :

1. Confirmed (i.e. positive on bacteriological examination) .. .. .	Sonne	557
2. No specimens taken .. .. .	..	44
3. Specimens taken—negative .. .. .	..	584

B. Symptomless excretors .. .. .	..	410
----------------------------------	----	-----

Total cases coming to the notice of the Department ..	1,595
---	-------

In addition, stool specimens were examined from 1,139 negative contacts.

The main sources of infection found were other members of the family, in schools and nurseries. In many cases the source of infection could not be found.

		Source of Infection						Total
		Nursery	School	Family	Work	Hospital	Unknown	
Clinical dysentery								
confirmed	..	66	148	64	3	8	268	557
Clinical dysentery—								
no specimens								
taken	..	..	—	—	2	—	—	42
44								
Clinical dysentery—								
specimens taken—								
negative	..	8	72	44	1	—	459	584
Symptomless								
excretors	..	64	19	285	1	24	17	410

The age distribution was :

		Under 1 month	1-5 mths.	6-11 mths.	1-4 yrs.	5-14 yrs.	15-44 yrs	45-64 yrs.	over 65 yrs.	Total
Clinical dysentery										
confirmed	..	—	6	4	232	240	62	2	11	557
Clinical dysentery										
—no specimens										
taken	..	—	1	1	20	5	10	6	1	44
Clinical dysentery										
—specimens										
taken—negative	—	8	15	184	218	146	10	3	584	
Symptomless										
excretors	..	—	2	9	125	123	126	9	16	410

As in previous epidemics most of the infections occurred in children, the very much larger number of cases of confirmed clinical dysentery in children (482) than in adults (75) being particularly striking.

The incidence of dysentery in the two sexes is shown in the two tables below. As before there are more females than males positive among those aged over 15 years.

		Males	Females	Total
Clinical dysentery confirmed	..	295	262	557
Clinical dysentery—no specimens taken	..	18	26	44
Clinical dysentery—specimens taken—				
negative	..	315	269	584
Symptomless excretors	..	181	229	410

Age Groups	Males			Females			% pos. ratio
	Pos.	Neg.	% pos.	Pos.	Neg.	% pos.	Males/ Females
0—4 years	189	164	53.2%	175	127	57.9%	0.92/1
5—14 years	195	244	46.6%	177	183	49.1%	0.95/1
15 and over	92	453	16.1%	139	552	20.1%	0.80/1
Totals ..	476	861	35.6%	491	862	36.2%	0.99/1

Most of the cases cleared quickly but some lasted longer than twelve weeks and proved resistant to both sulphonamides and antibiotics.

		Weeks to Clear										
		1	2	3	4	5	6	7	8	9	10	11
Clinical dysentery con-												
firmed ..	..	13	59	91	93	83	77	40	24	22	11	9
Clinical dysentery—no												
specimens taken ..	..	—	—	—	—	—	—	—	—	—	—	—
Clinical dysentery—												
specimens taken —	—											
negative ..	..	141	264	112	33	22	6	3	2	—	—	1
Symptomless excretors		10	40	58	65	53	46	63	17	20	8	7

		Weeks to Clear— <i>continued</i>									
		12	13	14	15	16	17	18	Unknown	Total	
Clinical dysentery con-											
firmed ..	..	15	5	2	3	—	—	—	10	557	
Clinical dysentery—no											
specimens taken ..	..	—	—	—	—	—	—	—	44	44	
Clinical dysentery —											
specimens taken —	—										
negative ..	..	—	—	—	—	—	—	—	—	584	
Symptomless excretors		8	—	1	1	—	3	1	9	410	

The usual procedure we recommend now for such symptomless carriers who have not responded to treatment is for treatment to be discontinued and for them to be resampled each two to three weeks until three negative specimens are obtained. The child—it is usually a child—is perfectly well apart from passing the organisms and as these are usually scanty, the chances of them infecting others are less than with the active case, that is provided other members of their families are aware of their infection and adequate precautions are taken.

The prevention of this disease depends on good hygiene and there is no doubt that if everyone washed their hands after visiting the toilet, the number of cases would be reduced.



Thanks must again be given to the general practitioners for their very full co-operation, to Dr. Mair, the Director of the Public Health Laboratory and his staff for the bacteriological results and to the teachers, nursing staff and health visitors for dealing with cases and outbreaks.

### Food Poisoning

There was a considerable increase in the number of cases of food poisoning notified during the year—300 compared with 41 in 1953, and 61 and 115 in each of the previous two years. The increase was due both to more cases occurring in outbreaks—178 in 26 outbreaks compared with 11 in 2 outbreaks in 1953—and to more single cases. Whether even this is the whole of the picture, is doubtful.

The following table summarises the outbreaks brought to the notice of the Health Department.

Where outbreak occurred			No. of cases	Vehicle of Infection		Organism
1.	Private house	..	Jan.	3	Unknown	.. Unknown
2.	..	..	Feb.	2	? Potted meat	.. Possibly staph. aureus
3.	..	..	Mar.	4	Unknown	.. Unknown
4.	..	..	..	2	Pressed beef	.. Staph. aureus
5.	..	..	April	2	Unknown	.. Salm. typhi-murium
6.	..	..	..	3	..	.. " "
7.	..	..	May	3	..	.. Unknown
8.	..	..	June	2	..	.. Salm. typhi-murium
9.	..	..	July	4	..	.. Unknown
10.	..	..	..	2	? Gravy	.. Possibly staph. aureus
11.	..	..	..	2	Unknown	.. Salm. thompson
12.	..	..	..	3	? Tinned steak	Unknown
13.	Institution	..	Sept.	84	Brawn	.. Heavy bacteriological contamination
14.	Private house	..	..	2	Tongue	.. Staph. aureus
15.	..	..	..	3	Unknown	.. Salm. typhi-murium
16.	Nursery school	..	..	16	? Mutton	.. Probably staph. aureus
17.	Private house	..	Oct.	3	Unknown	.. Salm. typhi-murium
18.	..	..	Nov.	6	..	.. " "
19.	School	..	..	12	Stewed apples	.. Copper
20.	Private house	..	..	2	Unknown	.. Salm. typhi-murium
21.	..	..	..	3	..	.. " "
22.	..	..	..	2	..	.. " "
23.	..	..	..	3	..	.. " "
24.	..	..	..	2	..	.. " "
25.	..	..	Dec.	4	..	.. " "
26.	..	..	..	4	..	.. Unknown
Total			..	178		

In addition there were 122 single cases of which 18 were due to the following identified agents :

Salm. thompson	..	..	..	..	1
Salm. bredeney	..	..	..	..	2
Salm. enteriditis	..	..	..	..	1
Salm. typhi-murium	..	..	..	..	14

When the specimens from 31 patients notified as food poisoning were examined at the Public Health Laboratory, the cause of their illness was found to be sonne dysentery. On the other hand, 11 notified dysentery cases were proved to be salmonella typhi-murium infections. This is understandable as the symptoms of certain types of food poisoning, salmonella infection which is one of the causes of food poisoning, and dysentery, may be indistinguishable.

In the outbreaks where the vehicle was ascertained, meat products were again the most common, being responsible in three outbreaks with a total of 88 cases and possibly responsible in another four outbreaks of 23 cases. The definite cases were due to meat which after cooking had been placed in moulds, and all showed gross defects in production. The meat, after boiling, was placed on unsterile tables, the bones and sinews being removed by hand and when fairly cool it was placed in unsterile presses. In the outbreak due to heavy bacteriological contamination of brawn there were similar gross errors in technique. Several of the people working in the premises where the meat contaminated by *staphylococcus aureus* had been prepared, were found to have that organism in their noses. This organism would, therefore, readily get on to their hands and thence to the warm meat which was being handled. The centre of the meat in the presses would take several hours to cool, during which enough staphylococci could grow to produce sufficient toxin to cause illness.

Because of improved techniques—either sterilising by re-cooking the meat after it has been handled to remove bones and sinews, or only touching the cooked meat with sterile knives, forks and forceps—cases of food poisoning due to contaminated pressed meat products are becoming less likely.

The 13 outbreaks with 37 cases due to salmonella infection were all family outbreaks, usually one member having symptoms and being found positive and then on routine sampling of other members of the family some being found to be excreting the organism although not suffering from illness. Such symptomless carriers are probably almost as infectious as obvious cases and their ascertainment and subsequent treatment is therefore important. In addition there were 18 single cases



of salmonella infections, 36 of the total 55 cases were in children as the following table shows.

Age and Sex				
		Male	Female	Total
0-11 months	.. ..	1	1	2
1-4 years	.. ..	9	8	17
5-14 years	.. ..	5	12	17
15 and over	.. ..	10	9	19
		—	—	—
Totals	..	25	30	55
		—	—	—

Most cases cleared up in a few weeks but eight took twelve or more weeks. The rate of clearing of the more chronic symptomless cases seems very largely unaffected by the treatment given, eventually becoming negative after treatment, to which there has been no response, has been discontinued for some weeks.

Weeks to Clear												
1	2	3	4	5	6	7	8	9	10	11	12 or more	
—	6	5	8	8	8	3	4	3	1	1	8	
								(2 S. t.-m.)	(S. t.-m.)	(S. t.-m.)	(1 S. thompson)	
								(1 S. enteri-			(7 S. t.-murium)	
								ditis)				

The outbreak due to copper affected three adults and nine children who ate stewed apples cooked in a copper vessel, of which the lining was defective. The symptoms were mild—nausea, vomiting, and in two cases slight diarrhoea. A sample of the cooked apples recovered from the pig bin contained 90 p.p.m. of copper. Steps were taken to retin the defective vessel.



TABLE 1

Showing estimated Population, Birth-rates and Death-rates (General and Zymotic) per 1,000 living during the last 40 years—1915-1954

Year	Estimated Population	Birth-rate	Death-rate	Zymotic Death-rate	Infant Mortality
1915	232,664	20.8	14.9	.5	122.8
1916	225,907	20.7	13.6	.8	104.8
1917	217,537	16.9	13.5	.7	105.0
1918	217,537	14.9	17.8	.5	108.1
1919	236,059	15.3	13.0	.3	98.0
1920	236,874	24.9	12.1	.8	89.4
1921	237,900	22.4	12.0	.5	85.9
1922	238,240	19.5	12.7	.5	87.8
1923	238,580	19.2	11.6	.4	84.0
1924	238,920	18.3	12.3	.7	79.0
1925	239,260	17.5	13.1	1.3	87.6
1926	239,600	17.2	12.4	.7	77.4
1927	239,940	16.5	12.7	.5	75.1
1928	240,280	16.6	11.4	.2	70.7
1929	240,620	15.6	14.2	1.3	80.3
1930	240,960	16.1	11.4	.4	55.7
1931	241,300	15.3	12.4	.5	63.7
1932	240,800	14.9	12.5	.8	70.0
1933	241,500	13.4	12.8	1.0	74.6
1934	241,100	14.2	11.7	.4	52.7
1935	261,000	13.9	11.6	.4	59.4
1936	261,800	14.5	11.6	.3	58.4
1937	262,900	14.5	12.5	.8	62.5
1938	263,300	14.7	11.2	.4	45.9
1939	262,900	13.9	11.5	.4	49.1
1940	259,400	13.9	14.5	.4	51.2
1941	265,310	13.9	12.2	.4	55.0
1942	259,400	16.7	11.2	.4	50.6
1943	254,800	18.6	12.8	.5	48.5
1944	257,450	20.3	11.9	.3	39.0
1945	256,960	19.2	12.2	.4	54.3
1946	269,320	21.0	12.2	.5	53.7
1947	275,830	21.9	12.2	.4	47.2
1948	280,300	19.1	10.8	.45	38.3
1949	283,400	17.9	11.6	.59	23.8
1950	287,520	16.4	11.5	.58	29.5
1951	284,700	16.2	12.4	.09	25.2
1952	285,900	15.9	11.4	.09	24.2
1953	286,500	16.0	11.2	.20	24.8
1954	287,300	15.3	11.2	.09	27.2

TABLE 2—CAUSES OF DEATH

CLASSIFICATION	Sex	All Ages	0—	1—	5—	15—	45—	65—
TOTAL DEATHS .. ..	M	1655	63	6	11	79	458	1038
	F	1585	57	9	6	100	309	1104
1. Tuberculosis of Respira- tory System .. ..	M	39	—	—	—	10	21	8
	F	29	—	—	—	18	4	7
2. Other forms of Tubercu- losis .. ..	M	2	1	—	—	—	—	1
	F	6	—	1	—	2	3	—
3. Syphilitic Disease ..	M	7	—	—	—	1	3	3
	F	3	—	—	—	—	1	2
4. Diphtheria .. ..	M	—	—	—	—	—	—	—
	F	—	—	—	—	—	—	—
5. Whooping Cough ..	M	—	—	—	—	—	—	—
	F	—	—	—	—	—	—	—
6. Meningococcal Infec- tions	M	2	1	1	—	—	—	—
	F	2	1	1	—	—	—	—
7. Acute Poliomyelitis ..	M	1	—	—	—	—	1	—
	F	—	—	—	—	—	—	—
8. Measles .. ..	M	—	—	—	—	—	—	—
	F	—	—	—	—	—	—	—
9. Other Infective and Para- sitic Diseases .. ..	M	5	1	2	1	—	1	—
	F	2	—	1	—	—	1	—
10. Cancer of Stomach ..	M	49	—	—	—	2	17	30
	F	35	—	—	—	—	10	25
11. Cancer of Lung and Bronchus .. ..	M	96	—	—	—	5	62	29
	F	16	—	—	—	1	6	9
12. Cancer of Breast ..	M	—	—	—	—	—	—	—
	F	54	—	—	—	8	24	22
13. Cancer of Uterus ..	F	36	—	—	—	7	16	13
14. Other Malignant and Lymphatic Neoplasms..	M	133	—	—	1	5	36	91
	F	162	—	1	—	7	49	105
15. Leukæmia, Aleukæmia	M	7	—	—	1	—	3	3
	F	5	—	—	—	2	2	1
16. Diabetes.. ..	M	3	—	—	—	—	1	2
	F	12	—	—	—	—	4	8
17. Vascular Lesions of Ner- vous System .. ..	M	242	—	—	1	6	50	185
	F	286	—	—	—	5	42	239
18. Coronary Disease, Angina	M	263	—	—	—	4	97	162
	F	115	—	—	—	—	22	93

TABLE 2 (continued)—CAUSES OF DEATH

CLASSIFICATION	Sex	All Ages	0—	1—	5—	15—	45—	65—
19. Hypertension with Heart Disease .. .. .	M F	48 42	— —	— —	— —	1 —	15 6	32 36
20. Other Heart Disease ..	M F	265 346	— —	— —	— —	7 10	30 41	228 295
21. Other Circulatory Dis- ease	M F	51 43	— —	— —	— —	1 3	11 9	39 31
22. Influenza .. .. .	M F	2 1	— —	— —	— —	— —	1 —	1 1
23. Pneumonia .. .. .	M F	42 57	3 5	— —	— —	1 2	8 8	30 42
24. Bronchitis .. .. .	M F	115 68	5 3	— —	— —	1 3	35 8	74 54
25. Other Diseases of Respi- ratory System .. .. .	M F	15 14	1 2	— —	— —	— 2	8 1	6 9
26. Ulcer of Stomach and Duodenum .. .. .	M F	28 7	— —	— —	— —	— 1	7 1	21 5
27. Gastritis, Enteritis and Diarrhœa	M F	6 4	2 2	— —	1 —	— —	1 2	2 —
28. Nephritis and Nephrosis	M F	16 7	— —	— —	— 1	4 —	5 2	7 4
29. Hyperplasia of Prostate	M	19	—	—	—	—	1	18
30. Pregnancy, Childbirth, Abortion .. .. .	F	2	—	—	—	2	—	—
31. Congenital Malforma- tions .. .. .	M F	16 14	14 11	— 1	1 —	— 1	1 —	— 1
32. Other Defined and Ill- defined Diseases	M F	105 130	33 31	3 3	1 1	7 13	21 27	40 55
33. Motor Vehicle Accidents	M F	22 12	— —	— —	2 3	14 1	4 4	2 4
34. All Other Accidents ..	M F	35 51	2 2	— 1	2 1	5 3	5 6	21 38
35. Suicide .. .. .	M F	19 23	— —	— —	— —	5 8	12 10	2 5
36. Homicide and Operations of War .. .. .	M F	2 1	— —	— —	— —	— 1	1 —	1 —



TABLE 3

Table showing Population, Birth-rates, Death-rates, and  
Mortality rates of the 20 large towns

	Birmingham	Bradford	Bristol	Cardiff	Coventry	Croydon	Kingston upon Hull	Leeds
Registrar-General's estimated population .. ..	1,117,700	286,500	444,900	248,000	264,600	249,800	300,000	507,200
Comparability factor :								
(a) Births .. ..	0.94	1.00	0.99	0.94	0.95	0.99	0.96	0.98
(b) Deaths .. ..	1.14	0.97	0.96	1.07	1.27	0.90	1.15	1.08
Crude birth-rate per 1,000 population .. ..	16.36	16.4	15.04	18.11	15.76	14.3	18.3	15.0
Birth-rate as adjusted by factor ..	15.378	16.4	14.89	17.02	14.8	14.2	17.6	14.7
Crude death-rate per 1,000 population .. ..	10.64	14.78	11.61	11.58	8.2	10.6	10.7	11.3
Death-rate as adjusted by factor	12.130	14.34	11.15	12.39	10.4	9.5	12.3	12.2
Infantile mortality rate per 1,000 live births .. ..	24.23	31.4	20.77	34.06	30.4	19.0	33.9	26.0
Neo-natal mortality rate per 1,000 live births .. ..	16.79	20.0	15.84	21.82	22.0	14.0	19.3	17.8
Stillbirth rate per 1,000 total births .. ..	21.62	24.9	23.35	25.39	29.9	22.2	27.6	24.2
Maternal mortality rate per 1,000 total births .. ..	0.803	0.42	0.58	1.30	1.2	0.82	0.71	0.64
Tuberculosis rate per 1,000 population :								
(a) Primary notifications								
Respiratory .. ..	0.99	0.92	0.868	1.19	1.6	0.845	1.15	0.93
Non-respiratory ..	0.12	0.12	0.110	0.24	0.16	0.108	0.11	0.16
(b) Deaths								
Respiratory .. ..	0.20	0.11	0.151	0.30	0.15	0.112	0.25	0.16
Non-respiratory ..	0.01	0.02	0.016	0.02	0.015	0.016	0.02	0.01
<b>*Death-rates per 1,000 population from :</b>								
Cancer (all forms including Leukaemia and Aleukaemia)	2.05	2.30	2.084	2.06	1.5	1.94	1.98	2.03
Meningococcal Infections ..	0.00	—	0.00	0.004	—	0.00	0.01	0.005
Whooping Cough .. ..	0.01	—	—	—	—	—	0.00	—
Influenza .. ..	0.03	0.12	0.04	0.032	0.019	0.02	0.07	0.03
Measles .. ..	—	—	—	—	—	—	—	—
Acute Poliomyelitis and Encephalitis .. ..	0.00	—	0.00	—	0.004	0.00	0.01	—
Diarrhoea (under two years) ..	0.01	0.02	0.00	0.048	0.012	0.00	0.02	0.02
Diarrhoea (under two years) (per 1,000 live births) ..	0.71	1.30	0.15	2.67	0.7	0.28	1.28	1.05

\*Where no deaths have occurred at all, a "dash" is inserted.

Where the number of deaths is too small to express as a rate, the figures 0.00 are inserted.



TABLE 3

rates, Zymotic Death-rates, Infant and Maternal  
of England and Wales for 1954

Leicester	Liverpool	Manchester	Newcastle upon Tyne	Nottingham	Plymouth	Portsmouth	Salford	Sheffield	Southampton	Stoke-on- Trent	Sunderland
287,300	786,100	699,000	286,500	311,500	217,500	243,600	171,500	503,400	194,300‡	274,100	181,800
0.99	0.92	0.95	0.95	0.95	1.02	1.02	0.95	0.99	0.98	0.94	0.94
1.02	1.20	1.13	1.10	1.09	1.02	0.98	1.16	1.06	1.03	1.24	1.16
15.36	20.02	16.94	16.95	16.05	16.46	15.23	16.72	13.64	16.69	15.6	19.7
15.21	18.42	16.10	16.10	15.24	16.79	15.53	15.88	13.50	16.36	14.7	18.5
11.28	11.38	12.20	11.27	10.61	10.79	10.76	12.02	11.56	9.60	11.0	10.7
11.51	13.65	13.78	12.40	11.56	11.01	10.54	13.94	12.26	9.89	13.6	12.4
27.19	30.81	29.47	25.53	24.35	28.21	23.71	30.35	23.88	23.59	33.0	29.4
17.45	20.71	20.01	18.32	14.78	19.83	14.01	19.53	15.87	16.26	23.87	19.0
23.24	24.78	31.80	25.48	19.79	24.52	24.96	24.83	24.16	23.05	31.5	21.9
0.44	0.49	0.49	0.20	0.59	1.09	1.31†	1.36	0.43	0.31	1.59	—
0.947	1.44	0.96	1.50	1.29	1.09	0.82	0.939	0.97	1.330	1.084	1.19
0.150	0.18	0.15	0.19	0.08	0.12	0.07	0.152	0.13	0.176	0.109	0.16
0.237	0.295	0.27	0.27	0.23	0.14	0.156	0.227	0.179	0.266	0.27	0.25
0.028	0.015	0.03	0.03	0.01	0.01	0.03	0.012	0.028	0.011	0.022	0.02
2.064	2.01	2.24	1.93	1.90	1.83	1.98	2.397	2.22	2.022	1.966	2.06
0.014	0.01	0.00	—	0.01	0.00	0.01	—	0.01	0.011	0.018	0.02
—	0.006	0.01	0.007	—	—	0.01	0.006	0.01	0.005	—	—
0.010	0.019	0.05	0.063	0.03	0.00	0.02	0.035	0.03	0.016	0.044	0.02
—	0.0038	0.00	—	0.00	—	—	0.012	—	—	0.0146	—
0.0035	0.000	0.00	—	—	0.00	—	—	0.00	—	—	0.01
0.010	0.01	0.02	0.007	0.00	0.04	0.02	—	0.02	0.016	0.219	0.02
0.680	0.57	1.01	0.41	0.2	2.51	1.08	—	1.46	0.956	1.404	0.84

‡In calculating these rates a population figure of 187,950 is used, which is a working population taking into account the boundary change on 1st April, 1954.

†Includes one death with interval of 30 years between pregnancy and death.

TABLE 4

## MUNICIPAL WARDS. VITAL STATISTICS, 1954

		DEATHS					Infant Mortality per 1,000 live births	Births
		0 to 1 year	1 to 5 years	5 to 65 years	Over 65 years	Total all ages		
1.	St. Margaret's	9	—	62	143	214	39.1	230
2.	Latimer	13	2	72	161	248	57.5	226
3.	Charnwood	3	—	50	108	161	14.2	211
4.	Spinney Hill	9	—	38	135	182	47.8	188
5.	Wycliffe	8	—	58	112	178	35.3	226
6.	Castle	11	1	46	128	186	62.1	177
7.	Westcotes	10	1	63	178	252	34.0	294
8.	Newton	12	1	74	144	231	27.9	429
9.	Abbey	8	2	46	96	152	29.9	267
10.	Belgrave	4	—	69	143	216	11.6	344
11.	Humberstone	7	3	86	189	285	23.2	301
12.	Evington	3	2	42	88	135	15.1	198
13.	Knighton	6	—	56	180	242	32.4	185
14.	De Montfort	5	1	62	123	191	17.7	282
15.	Aylestone	4	—	73	142	219	10.4	382
16.	North Braunstone	8	2	66	72	148	25.5	313

(Local Figures)

TABLE 5  
Showing the number of Deaths from certain Infectious Diseases in the Fifteen Years 1940-1954

Disease	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954
Measles ..	10	1	2	1	0	5	1	5	0	1	3	2	2	0	0
Scarlet Fever ..	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diphtheria ..	50	20	8	3	6	1	1	0	1	0	0	1	0	0	0
Whooping Cough ..	2	12	1	7	4	2	3	2	1	5	3	2	2	2	0
Diarrhoea } Under two															
Enteritis } years of age															
Influenza ..	11	28	45	25	25	43	76	83	19	6	7	5	5	4	4
Puerperal Fever..	86	32	26	92	16	20	26	9	4	16	4	117	7	29	3
Cerebro-Spinal Fever ..	2	1	4	4	3	1	1	0	0	3	3	0	0	0	0
Poliomyelitis ..	10	10	9	4	1	2	4	2	3	1	2	2	0	4	4
Encephalitis Lethargica ..	0	1	1	0	0	0	0	1	0	3	4	1	0	1	1
Pneumonia ..	4	2	3	0	1	2	1	6	4	4	1	0	0	1	0
	207	168	109	133	112	147	148	146	93	128	99	137	114	128	99

**TABLE 6. DEATHS FROM CANCER, 1954**  
**(TOTAL 583)**  
 (Calculated locally)

Tabulated as to Age, Sex and Organ Affected,  
 in accordance with local classification

Organ Affected	Under 35 years		35-65 years		Over 65 years		All Ages	
	M.	F.	M.	F.	M.	F.	M.	F.
Tongue .. ..	—	—	—	—	4	2	4	2
Jaw .. ..	—	—	1	—	—	—	1	—
Mouth .. ..	—	—	—	—	4	—	4	—
Oesophagus .. ..	—	—	1	—	4	4	5	4
Stomach .. ..	—	—	19	10	29	24	48	34
Intestines .. ..	—	1	—	1	4	10	4	12
Colon .. ..	—	—	5	8	18	19	23	27
Rectum .. ..	—	—	4	3	13	22	17	25
Liver .. ..	—	—	3	2	2	2	5	4
Pancreas .. ..	—	—	5	2	8	16	13	18
Lungs .. ..	3	2	64	5	28	6	95	13
Kidney .. ..	—	—	—	1	—	—	—	1
Bladder .. ..	—	—	6	2	3	10	9	12
Prostate .. ..	—	—	2	—	12	—	14	—
Ovary .. ..	—	—	—	10	—	7	—	17
Uterus .. ..	—	2	—	21	—	13	—	36
Breast .. ..	—	2	—	30	—	22	—	54
Bones .. ..	1	—	1	—	—	1	2	1
Other Forms or not specified ..	5	2	20	24	12	16	37	42
Total ..	9	9	131	119	141	174	281	302

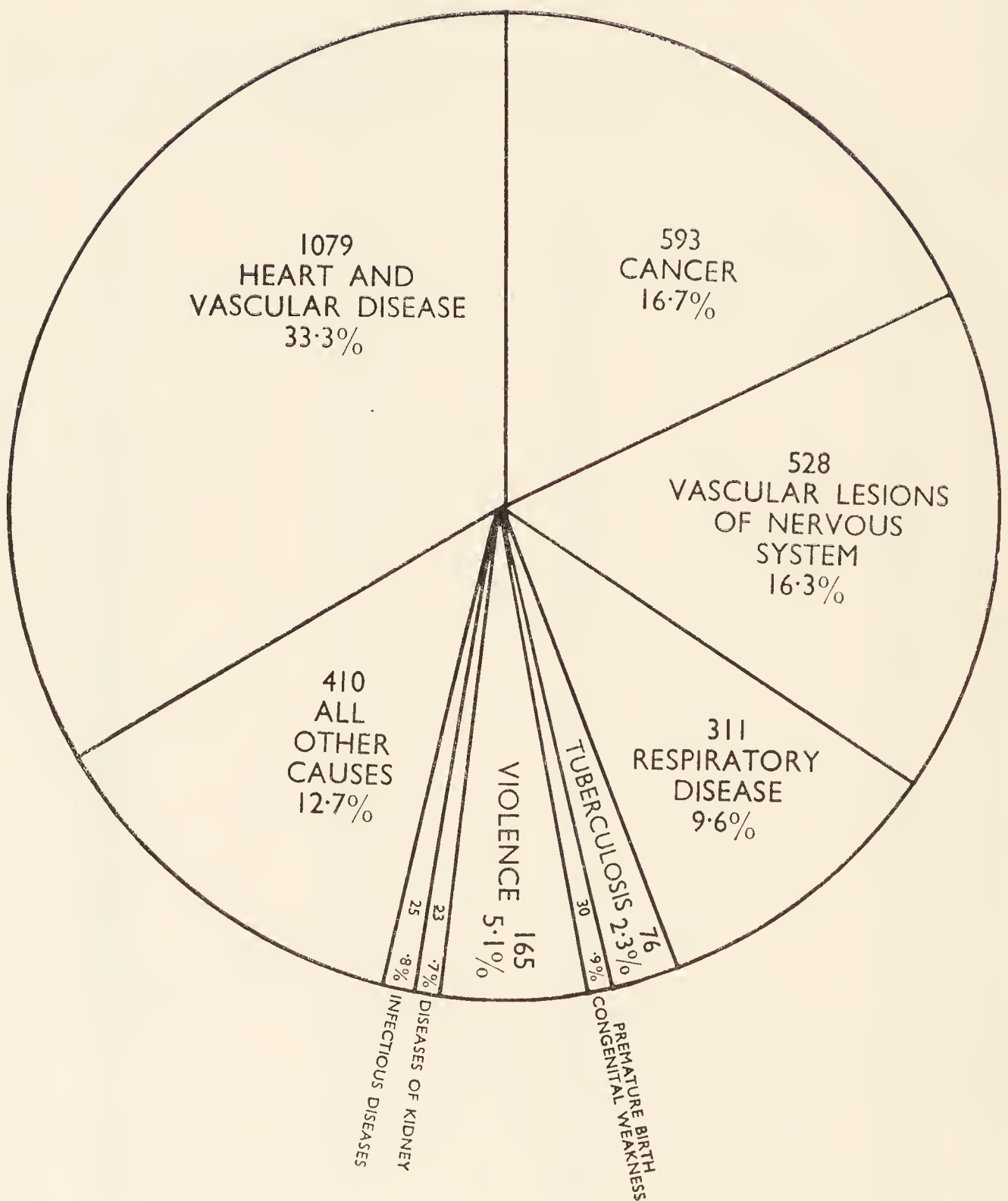


**TABLE 7**  
**CANCER STATISTICS, 1924-54**  
(Calculated locally)

Year			Total Cancer Deaths	Cancer Deaths —per cent. of Total Deaths	Cancer Death- rate per 100,000 Population
1924	..	..	281	9.5	116
1925	..	..	318	10.1	131
1926	..	..	395	13.2	163
1927	..	..	324	10.6	132
1928	..	..	349	12.7	142
1929	..	..	357	10.4	145
1930	..	..	372	13.5	151
1931	..	..	357	11.9	148
1932	..	..	356	11.8	148
1933	..	..	367	11.9	152
1934	..	..	377	13.3	156
1935	..	..	384	12.9	150
1936	..	..	392	12.9	150
1937	..	..	366	11.2	139
1938	..	..	417	14.1	158
1939	..	..	423	14.0	161
1940	..	..	447	11.9	172
1941	..	..	471	14.5	177
1942	..	..	465	15.9	179
1943	..	..	487	15.0	191
1944	..	..	519	16.9	202
1945	..	..	496	15.9	193
1946	..	..	504	15.3	187
1947	..	..	492	14.7	178
1948	..	..	526	17.4	188
1949	..	..	509	15.5	180
1950	..	..	561	16.9	195
1951	..	..	579	16.4	203
1952	..	..	593	18.2	207
1953	..	..	527	16.4	184
1954	..	..	583	17.9	202

# PROPORTION OF DEATHS FROM PRINCIPAL CAUSES, 1954

TOTAL DEATHS, 3,240



## SECTION B

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### Miscellaneous Health Services

In this Section reports will be found on the following services :

- (a) Water Supplies
- (b) Cremation
- (c) City Ambulance Service
- (d) Mental Health Service
- (e) Home Nursing Service
- (f) Care and After-Care, Health Education
- (g) Venereal Disease
- (h) Section 47, National Assistance Act
- (i) Children, neglected or ill-treated in their own homes
- (j) Blind Persons
- (k) Housing

## WATER SUPPLIES

I am indebted to Mr. H. Wallhouse, A.M.I.C.E., M.I.W.E., Water Engineer, for the report on the work of his Department during 1954.

Mr. Wallhouse reports as follows :

- “(1) The water supplied in the Statutory Area has been of good quality and adequate in quantity.
- “(2) Samples taken from local reservoirs have been analyzed by the City Analyst—both bacteriologically and chemically—and his reports have been satisfactory. Details of this work are given by the Analyst himself in his section of the Report. It is, therefore, only necessary for me to say that he approved all the samples submitted of chlorinated water as of good potable quality and all filtrated samples as satisfactory, if subjected to chlorination treatment.
- “(3) Apart from the analyses made of the raw waters, analyses have also been made—regularly and at random—of samples taken from various points within the Area, both by Health and Water Department officers. These, again, have satisfied the City Analyst.
- “(4) There are approximately 129,462 houses in the Corporation's Area of Supply. It is estimated that 2,000 of these are supplied by communal yard taps. The estimated population supplied—based on the 1951 Census—is 432,215.”



## CREMATION

I am indebted to Mr. E. H. Marsh, Superintendent Registrar, for the following information, which is extracted from his Annual Report.

“The practice of cremation in Leicester commenced in the year 1902, at a time when only seven other cremation authorities were operating in Great Britain, viz.—Woking, Manchester, Glasgow, Liverpool, Hull, Darlington, and Golders Green.

“There are now 73 Crematoria in operation in Great Britain.

“Leicester’s progress was very slow at first, but for the year under review, I am again pleased to report substantial progress, the total number of cremations being 1,506, an increase of 176 on the previous year.

“Propaganda has been continued during the year in the form of lectures to members of various organisations and visits to the Crematorium during the evenings of the summer months.

“The new Garden of Remembrance was opened on March 31st, 1952, by the Lord Mayor, Alderman T. Rowland Hill, when a service of dedication was conducted by the Rt. Rev. The Lord Bishop of Leicester and the President of the Leicester Free Church Federal Council. During the year, fees for scattering of cremated remains totalled £288 5s. 0d. as compared with £243 10s. 0d. for the year 1953. Whilst 143 rose trees have been sold (for a three-year period) for which £510 10s. 0d. has been received. The number for 1953 being 88 and fees received £277 4s. 0d.

“*Book of Remembrance.* The Book of Remembrance continues to prove a very attractive form of record, during the year £812 17s. 6d. having been received for entries as compared with £511 7s. 0d. for 1953, and £94 15s. 0d. received for memorial cards, making a total £1,007 12s. 6d.

Year	No. of Cremations		
1945	..	..	378
1946	..	..	471
1947	..	..	578
1948	..	..	561
1949	..	..	805
1950	..	..	946
1951	..	..	1138
1952	..	..	1216
1953	..	..	1330
1954	..	..	1506”

# CITY AMBULANCE SERVICE

(Mr. J. E. OSWELL, F.I.C.A.P.)

Chief Ambulance Officer.

It is most satisfactory to report that during the year, although there was an increase of 1,601 calls on the Service compared with the previous year, the road mileage travelled decreased by 36,747 and the miles per patient from 3.9 to 3.5. The three main reasons which have accounted for this considerable saving in mileage have been :

1. The installation, in April, of two-way radio which has improved efficiency, particularly when dealing with "accident and emergency" calls.

2. The replacement of seven four-seater cars by four small sitting case ambulances which carry either eight sitting cases or one stretcher case and four sitting cases and are more economical to run than the previous larger engined vehicles.

3. Increased transport of patients by rail. Rail mileage increased from 12,862 in 1953 to 23,278 in 1954. For long journeys rail travel is much more restful than road and also cheaper, and for such journeys we try to use it in preference to road as much as possible. We receive most excellent co-operation from British Railways, who arrange a reserved compartment for each case and whose staff are most helpful when patients are being loaded and unloaded and during the journey.

Tables summarising calls and mileage since 1948 are given on page 33.

## Introduction of Radio-Control

The following is based on a report that the Medical Officer of Health presented when the Committee was considering the introduction of radio.

Before radio was introduced, the fullest use was made of the telephone in the control of vehicles. For example, when an ambulance arrived at a hospital with a patient the attendant reported by telephone to the Ambulance Station Control and frequently the ambulance was re-directed and carried other patients without returning to the Station. The disadvantage of the method was that time was frequently wasted getting through by telephone and the driver of the vehicle was out of touch with the Station immediately he left until he himself reported.

When a patient had to be moved from a part of the city where there was already an ambulance, it was impossible to get in touch with that ambulance and a second had to be sent.

It is obvious that radio control is more efficient in controlling vehicles and may in some cases save life. For example, emergency calls can be dealt with more quickly, personnel need not return to the Station between calls, and vehicles can be easily mobilised to the scene of a major accident, but to estimate the saving in cost which might arise to set against the cost of the equipment was more difficult. An attempt to determine this point was made in two ways. A questionnaire was sent to the Medical Officers of Health of those county boroughs using radio asking for information about their ambulance staff, vehicles, yearly mileage and patients carried before and after they installed radio, and an investigation was made of our own Service.

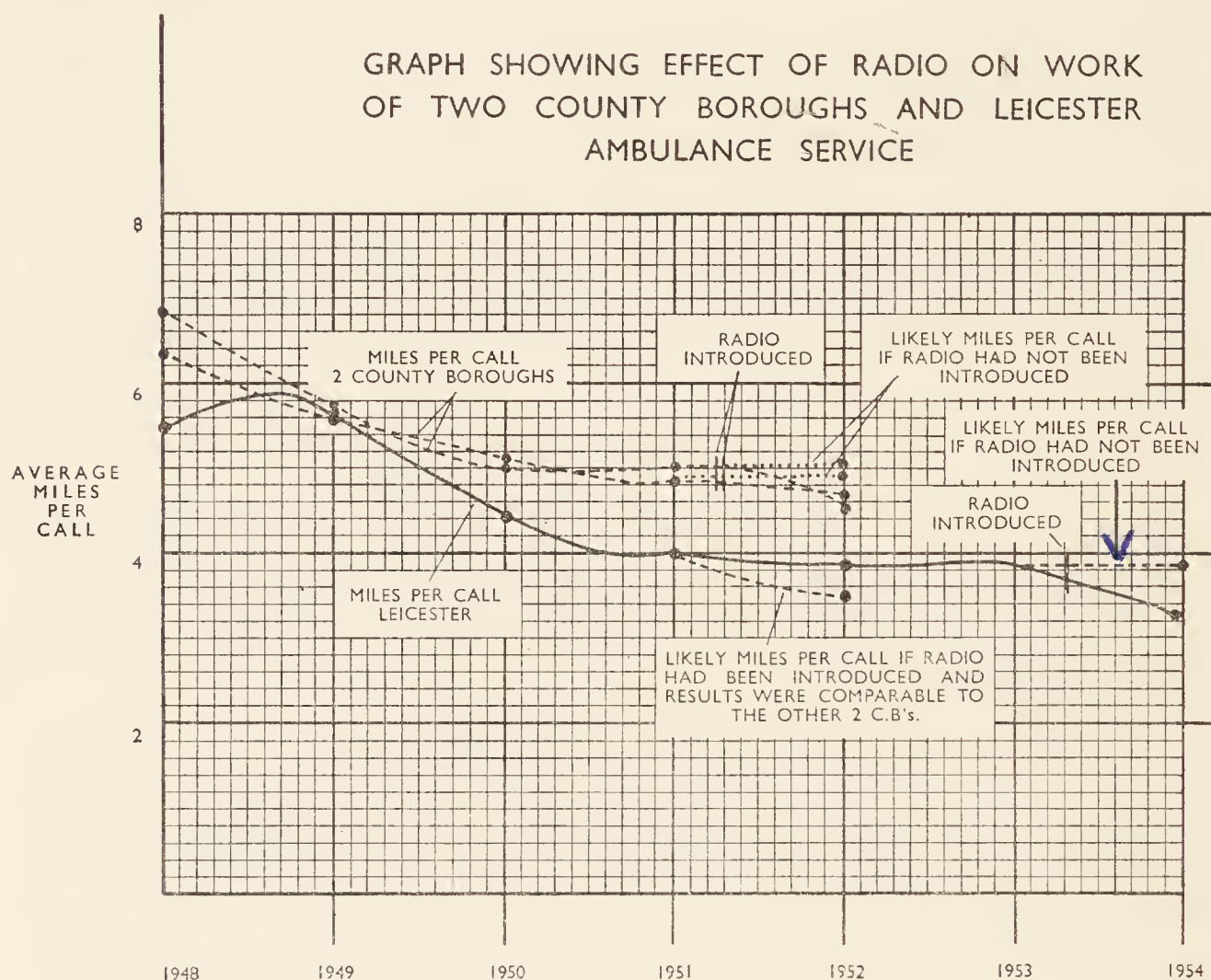
In the evaluation of changes in the efficiency of an Ambulance Service, one of the best indices is the figure of miles travelled per patient carried at different times, and these were examined in the replies to the questionnaire.

One difficulty in estimating the usefulness of radio in reducing the miles per patient figure is that Ambulance Services on their present scale are relatively new and therefore through increased administrative efficiency, improved vehicles, etc., a yearly reduction in the figure is to be expected. Authorities are also reporting increased calls on their Services but, as patients increase, usually the mileage does not increase to the same extent, reducing the figure for miles per patient. To show the economy achieved by radio, it is therefore not enough that miles per patient are reduced after the introduction of radio control. The miles per patient must be reduced at an accelerated rate.

Apart from considering such things as the cost of running the services and the number of staff employed before and after using radio, the method of investigating the replies to the questionnaire from the other county boroughs was to draw graphs of the yearly miles per patient figures, the actual miles per patient before and after radio control being entered and the miles per patient figure likely if radio control had not been used obtained from the graph. For the sake of clarity the graphs from only two authorities are reproduced in this report. For various reasons deductions could not be made from the statistics of all authorities. For example, in two, radio control started too early, in six too recently, to assess its effects on saving work and the city boundary of one borough was extended at the same time as radio control was introduced.



Three did not show a saving in miles per patient beyond what one would expect from that due to increase in patients. Three others showed a doubtful saving. In the case of six other boroughs their statistics indicated a significant saving following control by radio.



Making the Leicester graph similar to those of the two boroughs reproduced here would give a reduction in 0.4 miles per call, making an annual saving of about £950, the cost per mile being taken at 6 7/8 pence. This figure allows for petrol, oil, tyres, maintenance and depreciation but not for wages and overheads which do not necessarily vary greatly with changes in mileage.

The investigation of our own Service was done during one week when it was assumed that all vehicles were fitted with radio. Whenever "unplanned" calls were received, i.e. a call usually by telephone, to an emergency, accident or hospital, where insufficient warning of an ambulance being required had been given to enable the Service to plan the call, e.g., possibly by combining it with another, a check was made on all vehicles operating, and if one was near the patient and it seemed convenient, it was assumed that it was redirected and the mileage saved was estimated. (There was an estimated saving of 984 miles during the week, representing a sum of £1,457 for the year.) This method is likely



to give a greater saving than would in fact occur, as in some instances the ambulance that was theoretically re-directed would not be available.

It is interesting to see how the actual miles per call with radio compare with the likely miles per call obtained from the graph and this is dealt with below.

The following table gives the calls and mileage for the last nine months of 1954 and 1953.

		Calls		Mileage				
Date		1954	1953	1954	1953			
April	..	7,556	7,825	30,355	33,658			
May	..	9,894	8,974	32,211	35,413			
June	..	9,052	9,428	31,775	34,221			
July	..	9,522	9,387	31,890	36,782			
August	..	5,978	6,177	26,005	29,695			
September		9,094	8,927	27,591	33,216	Average miles		
October	..	9,482	9,752	28,901	35,102	per call		
November		10,418	9,048	31,107	31,869	9 months	9 months	Differ- ence
December	..	9,248	9,159	29,777	32,798	1954	1953	
<hr/>								
Totals	..	80,244	78,677	269,612	302,754	3.36	3.85	0.49
<hr/>								
Totals, less children to Occupation Centre								
	..	61,655	61,766	257,740	289,890	4.180	4.693	0.513
<hr/>								

Referring to the table above it will be seen that :  
for the nine months to December, 1953, the miles  
per call figure was .. .. . 3.85  
and for the nine months to December, 1954, the  
miles per call figure was .. .. . 3.36  
  
the saving between 1953 and 1954 being .. 0.49 which  
is very near the estimated reduction obtained from the graphs.

To find the saving due to radio control and improved vehicles for the nine months (unfortunately the effect on mileage of these two factors cannot be separated), it is necessary to deduct calls and mileage in respect of children taken to the Occupation Centre, as these were not influenced by the two things we are considering. The figures so obtained are given at the bottom of the table where the difference in miles per call is .513. One hundred and eleven fewer calls were made during the 1954 nine-month period compared with the similar period in 1953, and the mileage was 32,150 less. To obtain a truer picture of the mileage

saved it is necessary to allow for the decrease in patients and this has been done by multiplying the number of patients carried in the nine months of 1954 (61,657) by the saving in miles per patient (0.513) giving 31,629 miles saved. Some of this was due to an increase of 9,360 train miles and deducting this gives a saving of 22,269 miles due to radio and improved vehicles. At  $6\frac{7}{8}$  pence per mile, this amounts to £638, and taking a full year proportionately, the saving would be £850. During the first three months of radio, while experience was being gained, the miles per call figure was not as low as it became later in the year. In future, therefore, a greater yearly saving is to be expected. The yearly cost of radio, allowing for a seven-year life and including interest charges, maintenance, licences, etc., is £836, so it can be seen that the cost will be more than covered without taking into account possible staff savings.

Over the same period there was a further saving of £200 due to the additional train mileage as it is considerably cheaper to send patients by rail— $1\frac{3}{4}$  pence per mile compared with  $6\frac{7}{8}$  pence per mile by road.

### Comparison of work in 1954 and 1953

The table opposite gives the statistics for the different types of work for 1954 and 1953. The main differences are the small increase of 746 “out-patients” and 333 “discharges and convalescence”, and a decrease of 1,482 “admissions and transfers” and of 35,500 miles travelled, as compared with 1953.

There has been an increase of 2,903 children carried to the Occupation Centre and a decrease of 1,179 miles travelled in respect of this work as compared with the previous year, the average miles per child showing a saving of 0.132 miles.

Hospital staff and doctors are now agreeing more than in the past to the use of train transport, and during the year there was an increase of 88 patients carried by train, and an increase of 10,416 miles travelled.

Even though the work done by the Service during the year has levelled out rather than increased, it has been an extremely busy one operationally, two contributory reasons being :

1. New housing estates continue to be built further from the centre of the town.
2. More traffic on the roads caused congestion in the city centre during peak periods. On many occasions it was quicker to make a detour round the city centre than to cut straight through the town.

	Total Calls, 1954	Total Calls, 1953	Increase of 1954 over 1953	Decrease of 1954 from 1953
Out-patients .. ..	52,631	51,885	746	—
Admissions and Transfers	8,536	10,018	—	1,482
Discharges and Convales- cence .. ..	10,932	10,599	333	—
Maternity .. ..	1,872	1,882	—	10
Mental .. ..	175	181	—	6
Dead on Arrival ..	302	278	24	—
Infectious .. ..	205	228	—	23
Accidents (Road) ..	686	696	—	10
Accidents (Others) ..	1,357	1,334	23	—
Premature Cot .. ..	43	34	9	—
Other Authorities ..	141	154	—	13
Chargeable Transport ..	127	129	—	2
Gas and Air .. ..	3,455	3,738	—	283
Transport .. ..	1,235	1,390	—	155
Abortive .. ..	930	1,383	—	453
Number of Calls ..	82,627	83,929	—	1,302
Mileage .. ..	355,971	391,509	—	35,538
Average miles per call ..	4.308	4.665	—	.357
Children to the Occupation Centre .. ..	25,142	22,239	2,903	—
Mileage .. ..	16,506	17,685	—	1,179
Average miles per child ..	.657	.795	—	.138
Total Calls .. ..	107,769	106,168	1,601	—
Total mileage .. ..	372,477	409,194	—	36,717
Average miles per patient	3.456	3.854	—	.398
Patients conveyed by train	153	65	88	—
Number of miles travelled by train .. ..	23,278	12,862	10,416	—
Average miles per patient by train ..	152.1	197.9	—	45.8

## Vehicle Strength

I append below a complete list of vehicles attached to the Ambulance Station :

- 17 Ambulances
- 5 Sitting Case Ambulances
- 2 Sitting Case Cars
- 1 Service Van
- 5 Civil Defence Ambulances
- 1 32-Seater Coach (Mental Health Department)



As most of these vehicles were purchased during 1949 and 1950 and are now five or six years old, a great deal of work is required to keep them in first-class working order. It may be necessary for some to be replaced during the year 1957. The Ambulance Service workshop is also responsible for the repair and maintenance of all other vehicles and mechanical transport attached to the Health Department, namely five saloon cars, four vans, five motor-scooters and 24 cyclemasters.

## Personnel

The strength of the Service is :

			<i>Present Strength</i>	<i>Establishment</i>
Chief Ambulance Officer ..	..	..	1	1
Station Officers ..	..	..	2	2
Wireless Control Officer ..	..	..	1	1
Driver/Attendants ..	..	..	57	59
Female Attendants ..	..	..	10	10
Mechanics ..	..	..	4	4
Telephonist ..	..	..	1	1
Canteen Assistant ..	..	..	1	1
Clerks ..	..	..	2	2
Shorthand Typist ..	..	..	1	1
Boiler-Handyman ..	..	..	1	1
			—	—
			81	83
			—	—

## Transport of Milk to the Human Breast Milk Bank

The Ambulance Service continues to carry out the daily transport of a sister from the Bond Street Maternity Hospital to the homes of nursing mothers to obtain breast milk which is taken back to the hospital and made available for both hospital and district patients as necessary.

The cost of this work is charged to the Maternity and Child Welfare Department on an agreed mileage basis.

## Civil Defence

During the year the Ambulance Section of the Civil Defence Corps was given the additional duty of providing "Stretcher Bearer" parties, and was re-named "The Ambulance and Casualty Collecting Section". This will greatly increase the number of personnel that will be required for Civil Defence, and has necessitated more work and training.

Larger numbers are now attending weekly than in the past, and more local exercises have been carried out during the year.

## Conclusion

To conclude, this has been the most successful year of the Service since the commencement of the National Health Service in 1948 and it is hoped progress will continue and that by next year the average miles per patient will have decreased to below four.



The following tables give the total calls and road mileage, also patients conveyed by train and train mileage, for each year since 1948.

CALLS

	1948	1949	1950	1951	1952	1953	1954
City Ambulance Service	28,161	55,651	83,682	90,882	97,198	104,492	105,829
Leicester and County Convalescent Homes Society .. ..	*8,322	11,603	†1,897	nil	nil	nil	nil
St. John Ambulance Committee ..	178	609	2,351	4,418	1,677	1,676	1,940
Patients conveyed by train .. ..	N.R.	N.R.	N.R.	N.R.	103	65	153
Totals .. ..	36,661	67,863	87,930	95,300	98,978	106,233	107,922

MILEAGE BY ROAD

	1948	1949	1950	1951	1952	1953	1954
City Ambulance Service	147,765	287,941	367,768	366,982	376,012	403,703	366,233
Leicester and County Convalescent Homes Society ..	*44,888	84,310	†12,202	nil	nil	nil	nil
St. John Ambulance Committee ..	4,217	11,599	8,511	10,665	6,798	5,491	6,244
Patients conveyed by train .. ..	N.R.	N.R.	N.R.	N.R.	14,628	12,862	23,278
Totals .. ..	196,870	383,850	388,481	377,647	397,438	422,056	395,755

\*Denotes three months only.      †Denotes six months only.      N.R.—Not recorded.

# MENTAL HEALTH SERVICE

(Mr. S. A. GOODACRE, Mental Health Officer)

## (i). Administration

### (a) *Constitution of Meetings of the Mental Health Sub-Committee*

To the members of the Council who combine and serve on the Mental Health Sub-Committee are added three co-opted members, one of whom is the Medical Superintendent of the Towers Mental Hospital representing No. 3 Hospital Management Committee, one represents the Local Medical Committee and one the Executive Council.

### (b) *Staff*

The Medical Officer of Health is directly responsible for the administration of the Service and he has, in addition, the part-time service of a Medical Officer experienced in Mental Deficiency Work whose main duties concern the periodic examination of pupils at the Occupation Centre. The Deputy Medical Officer of Health interests himself a great deal in the working of the department and acts as ascertainment officer with reference to mental defectives.

#### *Staff at Charles Street*

At the commencement of the year the staff of the Department at Charles Street consisted of the Mental Health Officer, the Deputy Mental Health Officer, a Psychiatric Social Worker and three Mental Health Visitors. Assistance with the clerical work and administration is provided by two general clerk/typists.

The Mental Health Officer is responsible for the day-to-day administration of the Department, including the organisation and management of the Occupation Centre and the co-ordination of the many and varied duties performed by the officers in the Department. In this he is assisted by the Deputy Mental Health Officer and both are designated to enable them to act as Duly Authorised Officers under the Lunacy and Mental Treatment Acts, and Mental Health Visitors under the Mental Deficiency Acts.

The Psychiatric Social Worker dealt more particularly with the mental illness problem cases needing community care, either in an effort to prevent hospital care or to provide after-care and assistance with rehabilitation. It is regretted that this officer resigned his appointment

and left the Department during February as this loss considerably weakened the team work of the department.

For the purpose of Community Care of the mentally ill and the supervision and care of the mental defectives, the city is divided into five areas, the Deputy Mental Health Officer and the four Mental Health Visitors each being responsible for an area, within which they deal with all forms of supervision, care and after-care. With the exception of one of the Mental Health Visitors, who is a woman, all are designated as Duly Authorised Officers under the Lunacy and Mental Treatment Acts. All five area officers are authorised to present Petitions and to perform all relevant duties under the Mental Deficiency Acts. A 24-hour day service is provided for mental health emergencies, and a duty rota is maintained, the responsibility for this being shared between the Mental Health Officer, his Deputy and the three male Mental Health Visitors. The details of this rota are passed to the City Ambulance Service, which Department co-operates by promptly supplying the enquirer with the name, address and telephone number of the duty Mental Health Officer during nights, week-ends, bank holidays, etc., and this system has proved itself to be very satisfactory.

No academic qualifications are held which specially qualify the Mental Health Visitors as such. No training schemes, specially for Duly Authorised Officers or Mental Health Visitors, are at present able to provide such officers with academic qualifications. Training schemes are being planned by their appropriate vocational associations, and it is possible that qualifications will be available in the near future. In the meantime, the area group of the Society of Mental Welfare Officers and the Association of Teachers of the Mentally Handicapped combines to arrange lectures, instructive talks, and hospital visits, and the keenness of the staff is such that no opportunities are lost to improve their knowledge of work in the mental health field. The Midland Mental Deficiency Society has six members in this Department, and the meetings of this Society have been extremely valuable in providing similar educational facilities.

#### *Staff at the Occupation Centre*

At the end of the year the staff consisted of Mrs. M. V. Taylor (N.A.M.H. Diploma), one Assistant Supervisor (N.A.M.H. Diploma), and three Assistant Supervisors (unqualified). All the training staff have had previous experience in the nursing, care and training of mentally handicapped children.

Two cooks (one part-time assistant) are also employed.



(c) *Co-ordination with Regional Hospital Board and Hospital Management Committee*

Two members of the Mental Health Services Sub-Committee are members of the Hospital Management Committee concerned with the hospitalisation of the mentally ill and mentally deficient persons in the area. The Deputy Medical Officer of Health is a co-opted member of the Sub-Committee that deals more particularly with Mental Deficiency.

The Medical Officer of Health is an appointed visitor of Licenced Houses under the Lunacy Acts and of certified Institutions under the Mental Deficiency Acts.

The Medical Superintendent of the Glenfrith Hospital for Mental Defectives readily acts in an advisory capacity on problems bordering on and within the Mental Deficiency fields. Clinics are held at the Mental Health Offices in Charles Street, and visits made to the homes where necessary, and parents and their children are seen. The Mental Health Officer and Visitors find helpful advice readily forthcoming from this source. There are cases where doubt arises when ascertaining a mental defective and the Medical Superintendent is always ready to arbitrate and give expert knowledge when and where desired.

The Medical Superintendent of the Towers Hospital, already mentioned as a member of the Mental Health Sub-Committee, is also accessible, as are the Consultant Psychiatrists and Medical Staff of the Mental Hospital, to advise on problems arising in the field of mental illness. A weekly case conference is held at the Towers Hospital to which this Department's Officers have access.

Overlapping of the Hospital Social Workers and those from this Department is reduced to a minimum because of the close co-operation maintained. The tendency is always to remove the demarcation line of the respective fields and co-ordinate the work to a common aim. The whole of the responsibility for Community Care and After-Care of the mentally ill and the mentally deficient is shared between the Officers of the Mental Health Department and the Social Workers of the Hospitals, and no duties are delegated to voluntary associations. Officers of the Department work closely with other social agencies however, and a great deal of assistance is obtained from welfare workers of voluntary bodies.

The supervision of patients on licence from hospitals for mental defectives is similarly shared between officers of the Hospital Management Committee and the Local Health Authority, these duties include visits in respect of the renewal of Orders of patients on licence, and reports and supervision of patients on leave.



## (ii) Account of work undertaken in the Community

### (a) *Under Section 28, National Health Service Act, 1946* *Prevention, Care and After-Care*

In the initial stages of referral, the whole of the domiciliary work of the Department is carried out under this Section.

A total number of 1,109 persons were dealt with during 1954 who were either suffering, or alleged to be suffering from mental illness or mental defectiveness. 459 of these are explained more particularly in the section of this report which relates to Mental Treatment, and 650 are analysed in the section concerning Mental Deficiency. Comparable figures for 1953 are 1,084, 436 and 648.

### (b) *Lunacy and Mental Treatment*

On 1st January, 1954, there were 191 persons receiving help and advice in the Community either as observation or after-care cases. During the year a further 268 persons were referred, making a total of 459 persons who were dealt with. Of this total, 170 were admitted to hospital :

	1954	1953	1952	1951	1950
Summary Reception Order (Lunacy Act, 1890, Sections 14, 15 and 16) ..	108	145	146	129	114
Urgency Order (Lunacy Act, 1890, Section 11) .. .. .	12	13	17	15	14
Three-day Order (Lunacy Act, 1890, Section 20) .. .. .	42	14	5	—	—
Voluntary (Mental Treatment Act, 1930, Section 1) .. .. .	4	15	18	16	11
Temporary (Mental Treatment Act, 1930, Section 5) .. .. .	4	4	3	4	8
	<hr/> 170	<hr/> 191	<hr/> 189	<hr/> 164	<hr/> 147

Nearly all the cases dealt with by admission to hospital were initially referred to the department's officers by the patient's usual medical practitioner. In instances where the source of referral is otherwise, a general practitioner is brought into the case before action is taken.

In all cases dealt with, whether by hospital admission or not, the approval of the patient's usual medical practitioner and the consent of the patient's relatives are sought and their joint consent invariably obtained before officers of the department actively work on the problem.

Expediency is one of the factors justifying the use of either Section 20 or Section 11 (Urgency Orders), but whereas an Urgency Order remains in force for seven days after its date, Section 20 action limits the detention to a maximum of three days, and may where necessary, be further extended by the Medical Superintendent of the Hospital by an additional period of 14 days. There are numerous factors which must be taken into account before the more suitable instrument of admission is decided, but it is thought that in the main, the advantages of Section 20 are in the interests of the patients themselves. The increased use of Section 20 as a means of admission to Hospital is a very big stride forward towards a happier future for the treatment of the mentally ill in many cases the patient receives treatment earlier than he perhaps would have done if he had remained at home until certifiable. After admission he recovers sooner without the need in the majority of instances, of certification. The patient is grateful and the patient's relatives are most appreciative, all of which results in more co-operation and an improvement in social relationship which will progressively lead to the banishment of the stigma of mental illness yet remaining with the general public. The following statistics relate to the 42 patients dealt with by initial admission under that Section of the 1890 Act.

	Became Voluntary patients	Died	Dis- charged	Certified	Total
Within 3 days ..	14	3	1	1	19
After 3 days, plus extension of 14 days .. ..	17	1	3	2	23
Total ..	31	4	4	3	42

The number of voluntary patients admitted may be considered to be surprisingly small, but to arrive at the true figure of those admitted to the Towers Mental Hospital under this section of the Mental Treatment Act, one would need first to add 31, the number of patients who were admitted initially under Section 20 and who subsequently became voluntary patients and a further 259 patients who applied for admission at the Hospital either alone or with a relative. In the latter instance such cases are not accompanied by a Mental Health Officer but some seek admission because of advice given to them by Officers of the Department. No record is maintained of fully co-operative would-be patients, and such admissions and discharges are not notified to the Department by the Towers Mental Hospital.

There is a growing concern regarding the number of mentally infirm aged who are having to be dealt with by admission to Mental Hospitals

and in the early part of the year an exhaustive statistical return was made concerning the problem. As a result of this, towards the end of the year a research worker from the National Corporation for the Care of Old People was attached to the department and with the help of our officers and the equally co-operative help from other departments in the city dealing with aged persons, further investigations on a qualitative basis were carried out and it is hoped that much good will come from this.

In all, during the year, 57 mentally infirm aged persons (men over 65, women over 60) were admitted to the Mental Hospital, 41 of those were as certified patients and 10 were in accordance with Section 20 of the Lunacy Act.

### Community Care

The initial referral of these Community Care Cases came from various agencies and during the year were as follows :

From General Practitioners	..	..	..	31	
„ The Towers Hospital	..	..	..	24	
„ Other Hospitals	..	..	..	4	
„ Other Authorities	..	..	..	3	
„ Relatives	..	..	..	10	
„ Welfare, Housing, Police Departments	..			19	
„ National Insurance, National Assistance, Ministry of Health	..	..	..		
„ Miscellaneous sources	..	..	..	7	
					98 referrals
Those persons being dealt with by observation for preventive care or after-care on January 1st, 1954					(1953)
	..			191	(88)
Those referred during the year	..	..	..	98	(103)
Total					289
Referred to Welfare Department	..	..	..	14	
Satisfactory cases, no further action proposed			..	23	
Those persons needing Community Care on December 31st, 1954					(191)
	..	..	..	252	

The case load of the Psychiatric Social Worker was 191 cases at the beginning of the year. This officer left the department during February and the case load was shared amongst the other Mental Health Visitors. This was a considerable additional load on the already fully-extended Mental Health Visitors, but it was a necessary emergency action at the time. The vacancy had not been filled by December 31st.



This means that although the number of persons being dealt with continues its steady increase, the amount of time necessary which can be allowed to individual cases has to be reduced to an unsatisfactory minimum. There is a choice between narrowing the scope of the work done by the department, carefully built up over the past few years, or reducing the scope and dealing with only the more urgent calls.

Public awareness of mental illness and the need for advice and early treatment prevents a check in the growing scope of the department however and Officers have no choice but to spend more and more of what should be free time, endeavouring to meet demands.

There is a constant case load of mentally defective persons needing supervision, of approximately 600 cases, to which should be added the day-to-day referrals of new mentally deficient persons (61 cases during last year) and mental illness referrals (268 during the same period). This total is the normal case load for distribution between the five Mental Health Visitors and to which now is added, by the vacant establishment of a Psychiatric Social Worker, 252 Community Care mentally ill persons, many of whom need a great deal of time spending on them to prevent the need for hospital care.

Your Mental Health Officer considers it an urgent necessity that the team be strengthened.

(c) *Under Mental Deficiency Acts, 1913-1938*

Analysis of cases dealt with during the year :

		<i>Cases on</i> <i>Jan. 1st,</i>	<i>During Year</i>		<i>Cases on</i> <i>Dec. 31st,</i>
		1954	<i>Additions</i>	<i>Removals</i>	1954
Statutory Supervision	..	440	21	24	437
Voluntary Supervision	..	86	19	11	94
After-care and miscellane-					
ous cases	.. ..	42	8	10	40
Licence	.. ..	6	13	2	17
Guardianship	.. ..	1	—	—	1
<b>Total (1954)</b>		575	61	47	589
(1953)		562	86	73	575
(1952)		537	47	22	562
(1951)		491	77	31	537

Of the cases referred during the year, 28 were from the Local Education Authority. Eighteen of those concerned ineducable children excluded from the provisions of the Education Act, and 10 were



considered likely to require supervision after leaving school. Other sources of referral were from Parents 3, from General Practitioners 4, The Glenfrith Hospital for supervision on licence 13, for After-Care 7, Magistrate's Court 2, Probation Officer 1, other authorities 2, Royal Infirmary 1.

Fourteen cases were being investigated at the end of the year but their ascertainment was not complete by December 31st, 1954.

### *Waiting List for Mental Deficiency Hospital Care*

When the year commenced there were 25 names on this waiting list.

Because it is the policy of the department to include in this category only those cases where there is some real urgency of need, there are additions and removals from this list during the 12 months as the degree of urgency increases or lessens. A name is not included where the care and control in the home is considered reasonable or where opposition is likely to arise if hospital care were proposed.

In all 17 names were added to the waiting list during the year and 19 names were removed, leaving 23 awaiting hospital vacancies on December 31st, 1954. Of those 19 names which were removed, 10 patients were admitted to hospital, 5 were taken off because of either improved behaviour or improved home provision, and 4 died.

### *Training*

The Occupation Centre continues for the present to be housed in the premises leased from the Trustees of the Fosse Road Methodist Church, and provides not only for the training of children excluded from school, but also has to serve as a Handicraft Centre for pupils over the age of 16 years.

Periodic examinations of the pupils are made by a Medical Officer and emergency dental treatment is arranged. The School Health Service are always ready to be helpful and will see the children at the School Clinic. A weekly visit is made to the Centre by a Health Visitor and every effort is made to ensure that the children have as much care and attention as is necessary. The Centre is open during Primary School days and administratively follows, as closely as possible, the school arrangements made for normal children. The pupils attending are given a mid-morning beverage, usually one-third pint of milk, and the main mid-day meal is provided, for which a part charge of 6d. a day per pupil is made. Transport of the children to and from the Centre is provided by the Mental Health Department's own two vehicles, one a

32-seater coach, and the other a converted ambulance which seats 18 pupils, and both of these vehicles are adapted to suit their special needs. Each vehicle does two inward and two outward journeys each school day. The vehicles are staffed by the City Ambulance personnel and they are serviced at the Ambulance Station.

### *Attendance*

The number of pupils on the register in January, 1950 = 30					
„	„	„	„	„	1951 = 51
„	„	„	„	„	1952 = 64
„	„	„	„	„	1953 = 73
„	„	„	„	„	1954 = 84
„	„	„	„	„	December, 1954 = 86

There were no serious epidemics affecting the children, and during the year there were 13,325 actual attendances out of a maximum 16,710, resulting in an average of 79.74%.

New premises are planned so as to deal more suitably with this need and with the provision of adequate accommodation the attendance register is expected to be increased to about 120 pupils.

The following statistics relate to persons referred to the Department during 1954  
who were suffering, or alleged to be suffering from Mental Illness

Age ..	Men								Total Men	Women								Total Women	
	Men							80 and over		Women							Total Women		
	Under 20	20-29	30-39	40-49	50-59	60-69	70-79			Under 20	20-29	30-39	40-49	50-59	60-69	70-79			80 and over
Sec. 16 L.A. 1890 (Certified)	2	4	4	8	7	12	6	—	43	1	4	10	8	10	16	13	3	65	108
Sec. 1 M.T.A. 1830 (Voluntary) ..	—	—	1	—	—	1	—	—	2	—	1	1	—	—	—	—	—	2	4
Sec. 11 L.A. 1890 (Urgency) ..	1	1	1	4	1	—	1	—	9	—	1	—	2	—	—	—	—	3	12
Sec. 20 L.A. 1890 ..	—	4	4	5	1	3	3	—	20	—	3	2	4	6	4	3	—	22	42
Sec. 5 M.T.A. 1930 (Temporary) ..	—	—	—	—	—	—	—	—	—	—	—	1	2	1	—	—	—	4	4
After Investigation { Community Care .. Referred to Welfare Department .. No Action ..	1	2	4	6	5	4	4	—	26	2	4	4	5	9	11	5	—	40	66
	—	—	—	—	1	—	2	2	5	—	—	—	—	—	1	7	1	9	14
	—	—	—	1	1	1	3	1	7	—	1	2	—	3	4	—	1	11	18
Totals ..	4	11	14	24	16	21	19	3	112	3	14	20	21	29	36	28	5	156	268

# HOME NURSING SERVICE

## Senior Superintendent's Report for the Year 1954

(Miss A. RATCLIFFE, S.R.N., S.C.M.)

On January 1st, 1954, the administration of this Service became the direct responsibility of the City Health Committee and in June the office at University Road removed to the main Health Department offices in Grey Friars. After one year it is apparent from the following report that the Service has settled down under the new administration. As this is the first year under the new arrangement a very full report has been prepared.

During the year, to cope with the additional work, it was necessary to increase the establishment from 45 to 48 nurses. At present the Service is available from 8.30 a.m. to 10.30 p.m., but at some future date it is hoped to provide a night nursing service.

Requests for nursing come from general practitioners, hospitals, Health Department staff or other responsible persons and are made to the District Nurses' Home nearest to the patients' residence. There are four Homes in the City each having a Superintendent or Senior Nurse in charge, where the nurses report twice daily at 8.30 a.m. and 4.30 p.m. The Superintendent or nurse in charge allocates the nursing cases to the nurses who work on separate districts within the area of the Homes. A full complement of staff is on duty from 8.30 a.m. to 7 p.m. and a skeleton staff for emergency nursing and late injection treatment from 7 p.m. to 10.30 p.m. The Superintendent or nurse in charge of the Home is responsible for the nursing work in the area, allocation of nursing duties to the staff, supervision of nursing, general welfare of the staff, keeping of records, upkeep of all nursing requisites and nursing equipment, housekeeping including the supervision of domestics.

The Homes are situated in the following areas and the number of staff on January 1st, 1954, and December, 1954, is shown for each area.

### Homes

Central Home, 96 New Walk. Tel. No. 5315

Superintendent : Miss E. O. Ashton, S.R.N., S.C.M., H.V., Q.N.S.

Assistant Superintendent (Temporary) : Miss R. E. Morris, S.R.N., S.C.M., H.V., Q.N.S.

West End Home, 62-68 Valence Road. Tel. No. 34350

Superintendent : Miss F. G. Markwell, S.R.N., S.C.M., H.V., Q.N.S.



Belgrave Home, 129 Loughborough Road. Tel. No. 61335

Superintendent : Miss E. M. Kelly, S.R.N., S.C.M., H.V., Q.N.S.

Aylestone Home, 346 Aylestone Road. Tel. No. 32402

Senior Nurse : Miss E. J. Liner, S.R.N., S.C.M., Q.N.S.

## Establishment

	Full-Time		Part-Time		Total Individuals	Equiva- lent to Full-time
	Resident	Non- Resident	Number Employed	Equiva- lent to Full-time		
<b>January, 1954</b>						
Senior Superintendent	—	1	—	—	1	1
Central Home ..	9 (incl. 5 Students)	7	4	1½	20	15½
West End Home ..	3	7	8	2¾	18	12¾
Belgrave Home ..	4	5	6	1½	15	10½
Aylestone Home ..	3	1	2	1	6	5
Totals .. ..	19	21	20	6¾	60	44¾
<b>December, 1954</b>						
Senior Superintendent	—	1	—	—	1	1
Central Home ..	11 (incl. 3 Students)	6	5	2	22	18
West End Home ..	4	7	5	2	16	13
Belgrave Home ..	2	7	7	3¼	16	12¼
Aylestone Home ..	2	2	1	½	5	4½
Totals .. ..	19	23	18	7¾	60	48¾

The Central Home is a Training Home for District Nursing. The students are employed on practical nursing for two-thirds of their time, a student therefore being equivalent, from the nursing point of view, to two-thirds of a full-time nurse.

With the extension of the districts due to the situation of the new housing estates and the tendency for nurses to become non-resident, fewer nurses are living in the District Homes. The residential accommodation for nurses was reviewed during the year and it was decided that it would be more economical if the Aylestone Home was closed, the work being divided between the Central and West End Homes with one nurse living in a Housing Committee house on the Eyrcs Monsell Estate. The Housing Committee agreed to provide a house. When this becomes available early in 1955 and a telephone is installed, it will be

possible to close the Aylestone Home. A nurse took over a service tenancy of another Corporation house at 2 Hoball Close, New Parks Estate in late December. It is advantageous for nurses to live on the estates as travelling between the district and the District Home is avoided and more time can be spent on nursing duties. The helpfulness of the Housing Committee in granting these two houses is much appreciated.

During the year the Committee also decided to close the Belgrave Home provided suitable district premises could be obtained in the neighbourhood. At the end of the year it had not been possible to find alternative accommodation.

### **Queen's Institute of District Nursing**

In January the City Council applied and was accepted for membership of the Queen's Institute thus enabling the Council to continue employing and training Queen's Nursing Sisters.

**Queen's District Nursing Training**—one centre in Leicester is approved for training—the Central Home, 96 New Walk. Two courses are held annually, many of the lectures being combined with the Health Visitor Students' Course. During 1954, nine Leicester students completed training. Recruiting for District Nursing was rather poor during the early part of the year but improved later.

I would like to take this opportunity of expressing thanks to the lecturers, including the Medical Officer of Health, the Staff of the Maternity and Child Welfare Department, Sanitary Inspectors' Department, Social Welfare Department, Education Authority, Leicestershire County Nursing Association, Chest Clinic—Regent Road, Towers Hospital, Hillcrest Hospital, Groby Road Hospital, Leicester Co-operative Dairy, and the British United Shoe Machinery Co. Limited, for their helpful co-operation.

**Refresher Courses for District Nurses**—arranged by the Queen's Institute of District Nursing. Staff are encouraged to attend once in five years. During the year four nurses attended such courses at Oxford and Exeter.

**Co-operation with General Practitioners** remains good, direct contact being maintained between the general practitioner, Home Superintendent and nursing staff.

**Liaison with Hospitals** is fairly good. Again it is stressed that more use could be made of the Service by transferring patients from the wards, out-patient and casualty departments, to their own home

for home nursing. This would help to release hospital beds for more serious cases and relieve congestion of out-patients and casualty departments and decrease expenditure.

The Senior Superintendent gives one lecture on the work of the Home Nursing Service to students at the two General Nurse Training Schools. Arrangements are in hand for students from the State-enrolled Assistant Nurse Training School to spend one day on the district with a Home Nurse.

**The Transport** provided consists of three 8 h.p. cars, one used by the Central Home and office staff, one by the West End Home staff, one by Belgrave Home staff, five Vespas used by four male nurses and one female nurse, and 22 Cyclemasters. Five members of the staff use their own cars and two ride their own Cyclemaster or Motor-Cycle and are paid a mileage allowance. There is one van for the collection and delivery of nursing appliances from the Nurses' Homes to the nursing cases, for transport of Cyclemasters and Vespas between the Homes and City Ambulance Station, conveying dressing drums to the General Hospital for sterilizing, and other work. All the Corporation vehicles are serviced and maintained by the City Ambulance Service and we are most grateful to the Chief Ambulance Officer and staff for their co-operation. The motorisation of the Service enables the nursing staff to spend more time on nursing duties and less on travelling. The Vespas give satisfactory protection whereas the Cyclemasters and cycles leave the nurse exposed to the elements. A windshield was tried on the Cyclemasters but was found unsatisfactory. A small car for each nurse would be ideal but it is realised that at the present time this is impossible

## Nursing Work

The volume of work continues to increase and the year has again been very busy, there having been more cases and visits.

The table below shows the work since 1948.

		Cases brought forward		Total cases nursed	Total visits
			New cases		
1948	..	589	4,086	4,684	113,903
1949	..	614	4,696	5,310	127,207
1950	..	775	5,434	6,209	131,083
1951	..	768	6,205	6,973	133,690
1952	..	755	7,226	7,981	136,586
1953	..	819	8,166	8,381	157,198
1954	..	958	8,381	9,339	167,665

Since 1948 the number of cases has doubled and visits increased by about half.



	Number of Cases		Number of Visits		Average Staff		Hours Worked	
	1953	1954	1953	1954	1953	1954	1953	1954
Central Home ..	3,336	3,486	59,339	66,032	15 $\frac{3}{4}$	17 $\frac{1}{4}$	31,950	34,507
West End Home	2,392	2,418	45,678	45,931	12 $\frac{3}{4}$	12	23,227	24,244
Belgrave Home ..	2,310	2,397	37,627	40,358	12 $\frac{1}{4}$	11 $\frac{1}{2}$	17,984	23,985
Aylestone Home	947	1,038	14,554	15,344	4 $\frac{1}{4}$	4 $\frac{3}{4}$	7,983	8,414
Total ..	8,985	9,339	157,198	167,665	45	45 $\frac{1}{2}$	81,144	91,150

#### Average monthly case and visit load per nurse

		Cases		Visits	
		1953	1954	1953	1954
Central Home ..		19	19	353	352
West End Home ..		17	18 $\frac{1}{2}$	327	350
Belgrave Home ..		17	18	273	305
Aylestone Home ..		19 $\frac{3}{4}$	20	304	319
Average ..		18 $\frac{1}{3}$	18 $\frac{3}{4}$	314 $\frac{1}{4}$	331 $\frac{1}{2}$

#### Classification of Cases

			Cases		Visits	
			1953	1954	1953	1954
Medical .. ..			6,700	7,234	118,395	127,553
Surgical .. ..			1,816	1,646	25,935	24,921
Tuberculosis and Streptomycin injections ..			346	363	11,558	14,170
Notifiable Diseases ..			42	14	214	105
Maternal Complications ..			81	82	1,005	916

#### Principal Illnesses Nursed

				Cases	Visits
Pneumonia .. ..				218	1,776
Influenza .. ..				7	28
Diabetes .. ..				173	16,501
Tuberculosis and Streptomycin injections .. ..				363	14,170
Injectons other than Streptomycin and Insulin .. ..				4,326	49,706



			Cases	Visits
Children under 5 years	..	..	600	4,317
Children over 5 years	..	..	606	4,086
Patients 65 years and over	..	..	2,820	16,078

					Cases only
Chronic cases other than Cancer	..	..	..		1,034
Cancer cases	..	..	..	..	310
Chest cases other than Pneumonia and Tuberculosis	..				832
Dressings	..	..	..	..	1,325
Operations	..	..	..	..	12
Male patients	..	..	..	3,472	} 8,381
Female patients	..	..	..	4,909	

The use of antibiotics and other drugs in the treatment of many diseases has added more work to the nurses but, in the main, this work is acute, therefore the nursing is of shorter duration, the average visits over the year to each patient being 17 to 18. Nursing of the aged is usually heavy as many suffer from cerebral, cardiac or chest diseases and some live alone dependent on relatives, friends or the Home Help Service. When this type of patient no longer requires nursing treatment the Health Visitor continues visiting in a supervisory capacity, transferring any case back to the nurse should further treatment be necessary. Insulin treatment is given to diabetic patients, many of whom are transferred to the Service from the Leicester Royal Infirmary Diabetic Clinic. If the patient is incapacitated through age, blindness or other defect, treatment is continued over a long period. Many patients or relatives can, and are instructed in giving, insulin injections and, when fully conversant with all treatment, the case is transferred to the Health Visitor for diabetes who continues supervision. These arrangements prove satisfactory, the Health Visitor relieving the District Nurse of non-nursing visits.

### Home Nursing of Tuberculosis Cases

Due to the introduction of streptomycin for the treatment of tuberculosis more patients can be nursed at home, releasing hospital beds for patients requiring specialised treatment. The cases are referred to the District Nurse from the Chest Clinic, hospital or general practitioner. The treatment requires daily visiting of the patient for a period of five to eight weeks and daily records are kept regarding treatment and the condition of the patient. After the streptomycin course some patients are admitted to hospital for further treatment, others are referred back to the Chest Clinic. When nursing tuberculosis patients precautions are taken to avoid the spread of infection to the patient's family, other

patients, and the nurse. There was an increase of patients and number of visits in 1954. This is shown in the statistical report.

**Nursing Appliances** such as back-rests, air rings, bed-pans, urinals, mackintosh sheets, steam kettles, wheel chairs, etc., are loaned to patients, delivered and collected free of charge. Patients not being looked after by the District Nursing Service and requiring appliances are referred to the Charity Organisation Society or the British Red Cross Society whose co-operation and help are deeply appreciated. Nursing appliances loaned to patients during the year totalled 1,783. From May, 1954, crutch and walking-stick ferrules have been distributed from the Nurses' Homes instead of from hospitals. The demand has been very small.

### **Leicester District Nursing Aid in Sickness Fund**

Several necessitous cases have been referred by the nurses for help from this Fund. All have benefited considerably in the way of monetary grants, clothing and bedding. Opportunity is taken to express thanks and appreciation to the Trustees of this Fund for the consideration and help given to these needy patients.

Surveying the work of the year, progress is apparent. The demand on the Service has been considerable and, to meet this demand would have been impossible without the increase in establishment, co-operation and help of the Committee, Public Health Department, Staff, and the nurses themselves.

# CARE AND AFTER-CARE, INCLUDING HEALTH EDUCATION

## Sherwood Village Settlement

Three Leicester settlers were in this Settlement during the year (J.T.H., admitted November, 1951 ; L.S.C., admitted July, 1952, and C.A.T., admitted January, 1954).

## Enham-Alamein Village Centre

One case, A.W.B., was admitted in March, 1954.

## Assistance to cases of Tuberculosis

The scheme for the provision of beds and bedding to necessitous cases of tuberculosis was continued and 90 such cases were helped during the year ; of these 40 were new patients.

Free milk was supplied to 256 patients for varying periods during 1954 ; of these 150 were new and 106 were old patients.

## Convalescence

1954

Number of applications	Sent to :			No action
	Roecliffe Manor	Hunstanton	Other Homes	
167 (148)	4 (23)	74 (80)	48 (10)	41 as follows : Refused to pay assessment .. 18 (10) Dealt with by Convalescent Homes Society 6 (3) Other reasons : Private arrangements, etc. .. 17 (22)

Note : 1953 figures in brackets.

## HEALTH EDUCATION

(Mr. E. W. HARRIS, Health Education Assistant)

I have pleasure in submitting my second Annual Report as Health Education Assistant, covering my work for the year ending 31st December, 1954.

The increase in the number of meetings attended with films and talks was very satisfactory and the demand for repeat visits and the



appreciation of the various groups indicate that the audiences were very receptive of the information given.

The amount of work that is already on hand has restricted much further development. I would have liked to have devoted more attention to personal visits to factories to make contact with their welfare officers and the opportunities for visits to schools are not as numerous as I should wish.

In the majority of my activities I am aware that I may be "preaching to the converted", and therefore am continually on the watch for new means of contacting that section of the public who are most in need of my services.

New ventures included our stand at the Home Life Exhibition and the forming of Health Education Advisory Committees within the Department. The exhibitions at the Home Life and Abbey Park Shows were two of the items where, I believe, a considerable amount of good is being done amongst the public whom normally I should never contact.

### **Film and Lecture Service**

The large number of applications for film shows and talks to be given to pre-formed audience meetings was very gratifying. These included parent/teacher groups, women's guilds, youth groups and men's fellowships.

During the year 93 film shows were given to a total audience of 3,650 and at 26 of these shows the Health Services film was included in the programme.

Thirty-two talks were given on the "Work of the Health Department" and the Health Services film was shown to support the talk.

Sixty-four talks were given on other subjects by members of the Home Help, Health Visiting and District Nursing Services and to members of the food establishments by the staff of the Sanitary Inspection Department.

In addition, a continuous programme of films was shown at the Department's Stand at the Leicester Show. Home Safety films were shown at the welfare clinics during the month of January. Film Shows were also given to Student Health Visitors, Student Nursery Nurses and during the Home Help Preparation Course.

### **Accidents in the Home**

The high proportion of fatal accidents and injuries caused in the home compared with those caused on the roads, was the reason for a



campaign in January to remind adults of their responsibility towards the very young and the aged. Displays were arranged and films shown in the Welfare Clinics, and in addition films were shown at most of the evening meetings during the month.

### **Two-Day Course on the "Prevention of Non-Tuberculous Respiratory Diseases in Childhood"**

This Course, arranged by the Central Council for Health Education, was held in the Lord Mayor's Rooms, Hastings Street, and was very well attended by members of the Department. An invitation was forwarded to other departments who also sent members of their staffs.

Lectures were given by Dr. Dalzell-Ward and Dr. Emrys Davies. The talks were extremely good and very well received. The discussion groups which followed the lectures were particularly valuable, enabling the various sections of the audience to exchange ideas and information, and above all gave each section an idea of the work of the others.

### **Health Education Advisory Committee**

As the co-operation of all members of the Department is very necessary in the spread of information on the prevention of illness, in January a Committee was formed of Senior Departmental Officers.

It was agreed, at this meeting, that a Junior Committee should be formed consisting of a member of each section of the Department, and that a member of the City Education Department should be invited to attend both committees to meet at intervals to discuss ideas and schemes for the spread of Health Education, with myself as secretary of both committees.

Several useful ideas were produced in connection with the Department's exhibits at the Abbey Park Show and on the Stand at the Leicester Home Life Exhibition. In addition, practical help was given in the preparation of these exhibits and the manning of both exhibitions.

### **Health Services Handbook**

In July, 1,500 copies of the new edition of the *Health Services Handbook* were received and copies were forwarded to the Executive Council, doctors, hospitals and also distributed at meetings when the subject was the "Work of the Health Services".

### **Visitors**

A considerable number of people such as domestic science students, school teachers and leaders of junior clubs, visited my office to collect

posters, leaflets, display sets, etc. Information was always given as to the other services on Health Education which were available.

On the 14th May the Central Office of Information arranged that four Yugoslav officials should visit the Department to receive information as to the way the Health Services were run in England. During the visit the Health Services film was shown and Dr. Ross spoke on the Health Services generally and answered questions. A visit was also made to the Ambulance Station.

The visitors seemed to be quite impressed with what they saw and heard.

### **Factory Propaganda**

During the year some factories have been visited and supplies of posters and leaflets on health topics left with the Welfare Officers, most of these visits were made after application had been received for some posters on "Spitting".

A visit was made to a meeting of the newly-formed branch of the Industrial Nurses' Association, when films were shown, posters were displayed and information given on the services available in factories.

### **Dr. Fosse Guild**

The following meetings were arranged to take place at the Little Theatre Hall, Dover Street :

January	..	"Human Relations and Health" Dr. A. Dalzell-Ward
February	..	"Clean Food" Mr. T. W. Beresford
March	..	"Why Blood Transfusion ?" Dr. C. C. Bowley
April	..	"The Undeclared" (Rehabilitation) Dr. E. Goodwin
October	..	"The Health Service Begins" Dr. E. K. Macdonald
November	..	"Any Questions" Forum
December	..	"The Food We Eat" Dr. Joan Walker

In spite of extensive advertising of these meetings, the response from the public was still rather disappointing. This was a great pity in view of the excellent talks which were given.

## Dental Talks in Schools

During the week commencing the 17th May talks were given and films were shown at four schools, on the care of the teeth, to approximately 1,000 children. These had been arranged through Mr. Reynolds, the Senior School Dental Officer. They were thought to be very necessary in view of the apparent neglect of the teeth by children, observed on his routine examinations.

It is hoped during next year to extend these talks to further schools, as it is felt a more rigid observance of the cleaning and care of the teeth would considerably reduce the need for dental treatment.

## Publicity

The cards in the buses continued to be renewed at fortnightly intervals and are one of the best means of distribution of knowledge on health matters.

One of the members of the Health Education Advisory Committee has supplied several rhyming slogans on health subjects, and the many favourable comments and otherwise on the new style from many sources prove that a wide section of the public observe the contents of these cards.

The booklet *Better Health* has been circulated monthly.

The Manager of the Gaumont Cinema offered space in the circle foyer for a display on some aspects of Health Education to be on view during the showing of the film "A Doctor in the House". The offer was accepted and a display of the "Seven Rules of Health" was shown as being the means of reducing the need for "A doctor in the house".

## Food Hygiene

A further supply of the booklet *Clean Food in Leicester* was received from the printers and copies were widely circulated.

Many talks have been given by the Sanitary Inspection Staff on the clean handling of food and full use was made of the film "Another Case of Poisoning" and film strips on the "Hygiene of Food Handling".

As will be seen from the report of the Home Life Exhibition the theme was on Kitchen Hygiene.

## Exhibitions

*The Leicester Show*, August 3rd and 4th

The theme this year as far as the Health Department's Section was concerned was "Prevention of Tuberculosis".



On the site allocated three marquees were erected. One was used as a cinema, the second contained exhibits and information and the third was used by the clerical staff of the mass X-ray Unit. A sitting case ambulance was also on view.

In the exhibits marquee, charts, diagrams and photographs gave information about tuberculosis, including statistics in respect of Leicester, sources of infection, methods of detection and preventive measures. Other exhibits showed the part played by the various sections of the Health Department.

A continuous programme of films on tuberculosis was shown and the public were invited, by microphone and various posters to take advantage of the mobile unit and to have a chest X-ray taken.

As the Show was held during the August Bank Holiday it was thought that this was an ideal opportunity to persuade people, who ordinarily would not take the trouble, to have a chest X-ray and so the Director of the Mass Radiography Unit was approached and permission obtained for the Mobile Unit to be attached to our Exhibition.

The Exhibition had a steady stream of people passing through and the films attracted much attention.

Statistics provided by the mass X-Ray Unit showed :

Number having X-ray on the first day	..	..	360
Number having X-ray on the second day	..	..	469
			—
Total for the two days	..	..	829
			—

Of these 476 were having their first x-ray.

Mr. Lee, the Secretary, stated that this was the first time the Unit had held mixed sessions.

I am sure that our part of the Show was very successful and my thanks are due to members of the Department and to the staff of the Mass X-Ray for their assistance.

#### *Home Life Exhibition, 8th to 18th September*

The subject of our Stand at this Exhibition was "Your Kitchen". Two kitchens were shown ; one in an extremely dirty condition, with a shallow-type sink, dirt-grimed draining board and table, broken window, etc., and the housewife preparing food whilst smoking a cigarette ; the other showed what could be done at the minimum of









expense to provide a place where any housewife would be prepared to work.

The Stand attracted a great deal of attention and the local press published two articles on the necessity of cleanliness in the kitchen, and photographs of the Stand were shown.

A small exhibit asked the public to help in the Clean Food Campaign by dealing only with members of the Clean Food Guild, and several enquiries were received from traders as to how they could become members.

I must again thank the members of the Health Education Advisory Committees and other members of the Staff for their help in the preparation and manning of the Stand.

### **Summer School**

I was extremely grateful to have the opportunity again to attend the above. This School, arranged by the Central Council for Health Education, was held at Reichel Hall, Bangor, from 17th to 27th August. The theme this year was "Programme and Practice in Health Education". The School was attended by Medical Officers, Health Visitors, Sanitary Inspectors, School Teachers and Health Education Officers, not only from this country but from overseas. Ample time was allowed for practical work, and once again the contact with others working in the field of health education was of considerable benefit to me.

## VENEREAL DISEASE

I am indebted to the Secretary at the Royal Infirmary for the following table of cases treated, etc.—the 1953 figures are in brackets.

### Incidence of Venereal Disease and Allied Conditions in 1954

IN	Syphilis		Gonorrhoea		Other		Totals		
	M.	F.	M.	F.	M.	F.	M.	F.	Total
Number of cases under treatment or observation, 1st January, 1954	130 (159)	165 (168)	35 (25)	14 (13)	19 (21)	6 (9)	184 (205)	185 (190)	369 (395)
New patients during 1954 including inward transfers and returned cases .. ..	30 (32)	37 (56)	132 (132)	40 (30)	466 (496)	280 (301)	628 (660)	357 (387)	985 (1,047)
Totals .. ..	160 (191)	202 (224)	167 (157)	54 (43)	485 (517)	286 (310)	812 (865)	542 (577)	1,354 (1,442)
<b>OUT</b>									
Number discharged cured or needing no treatment .. ..	23 (30)	19 (27)	90 (74)	26 (21)	456 (493)	279 (304)	569 (597)	324 (352)	893 (949)
Defaulted .. ..	15 (18)	21 (22)	38 (30)	8 (8)	— (—)	— (—)	53 (48)	29 (30)	82 (78)
Died .. ..	2 (4)	1 (2)	— (—)	— (—)	— (—)	— (—)	2 (4)	1 (2)	3 (6)
Transferred .. ..	3 (9)	2 (8)	18 (18)	1 (—)	9 (5)	— (—)	30 (32)	3 (8)	33 (40)
Remaining at 31st Dec., 1954 .. ..	117 (130)	159 (165)	21 (35)	19 (14)	20 (19)	7 (6)	158 (184)	185 (185)	343 (369)
Totals .. ..	160 (191)	202 (224)	167 (157)	54 (43)	485 (517)	286 (310)	812 (865)	542 (577)	1,354 (1,442)

\*Of the new patients seen during 1954, approximately two-thirds are from Leicester City, the remainder from the County.



# NATIONAL ASSISTANCE ACT, 1948

## SECTION 47

This Section of the National Assistance Act provides that the Medical Officer of Health can recommend to his Authority that the case of a person who is "suffering from grave chronic disease, or being aged, infirm, or physically incapacitated, is living in insanitary conditions and is unable to devote to himself and is not receiving from other persons proper care and attention", be submitted to the Court for consideration of his compulsory removal to hospital. Usually the person who has to be considered under this Section of the Act is old and frail, is eating insufficient food, and, due to weakness or illness, has gradually let the house become increasingly dirty. Several visited during the year spent their time sitting on chairs and had not been to bed for some weeks.

When information is received about such a case a visit is paid and a decision made as to whether hospital admission is desirable, or whether, with improved care, for example a home help, they can remain at home. Only if absolutely essential and in the last resort is a case prepared for compulsory removal.

Ten cases in all were dealt with in 1954, referrals being made by patients' doctors, relatives or friends, and by the Welfare Department. In two cases relatives were able to look after the patients. In another four the Home Help Department took over and admission to hospital was not necessary. After considerable persuasion, four other patients agreed to go to hospital. Compulsory removal was not required in any case.

One of the old folk assisted by home helps had been living alone for several years and due to chronic ill-health had been unable to keep herself or her house clean. There were large accumulations of dirt throughout the house and numerous colonies of fleas in the inhabited rooms. It took many days to clean the house and during that time, in spite of Sanitary Department staff having the rooms and their contents sprayed with insecticide, the home helps, district nurse and others who were in attendance, and their friends at home, suffered severely with flea bites. As a result of this case a suit of special protective clothing has been provided for the District Nursing and Home Help Departments.

Home Helps are particularly successful in dealing with the type of case referred under this Section of the Act, so much so that compulsory removal becomes unlikely. For once a home help is in attendance the

patient is “receiving from other persons proper care and attention” and the case cannot be brought before the Court—a highly desirable outcome. Frequently on receiving adequate food and care these patients improve and are able to run their homes with only occasional help. Sometimes their physical condition deteriorates and they have later to be admitted to hospital, quite willingly, as the home helps have obtained their confidence and they recognise that the advice to go to hospital is reasonable and in their own interests.

# CHILDREN NEGLECTED OR ILL-TREATED IN THEIR OWN HOMES

The Medical Officer of Health continued to act as Co-ordinating Officer for children neglected or ill-treated in their own homes. Many of these neglected children, although not all, are from “problem families”, i.e. as one definition has it :

“Those who for their own well-being and that of others require a substantially greater degree of supervision and help over long periods than is usually provided by existing services”.

Such families make very great demands on the social services and anything which can be done to improve their conditions is most valuable. In November, the Ministry of Health published Circular 27/54 dealing with the prevention of the break-up of families. It stressed among other points the value of the health visitor and home help in this work and in the breaking of the vicious circle whereby problem families tend to reproduce themselves in the next generation. This most valuable circular is to be welcomed. Many of the responsibilities under it will fall on the Health Department and it is fortunate that the Medical Officer of Health is also Co-ordinating Officer for neglected children, as overlapping under the two arrangements will thereby be avoided.

During the year 40 cases were referred to the Medical Officer of Health under the co-ordinating arrangements, compared with 36 in 1953. In addition, at the beginning of the year, 5 cases that had been reported in 1953 were being dealt with.

On review of reports from interested departments, of the total of 40 cases, we considered that neglect was present in 21. In 19 the children were thought not to be neglected. Referral of these children, who on investigation were not neglected, was justifiable in all cases. For example, some followed a complaint by a neighbour or a separated parent that the child was not being properly looked after and several, although considered not to be neglected, were not being satisfactorily cared for.

The cases were reported to the Medical Officer of Health by the following officers :

Referred by				Total
Chief Constable	..	..	..	16
N.S.P.C.C.	..	..	..	9



Children's Officer .. ..	8
Others .. ..	3
Health Visitors .. ..	2
Medical Officers in Health and Education	
Departments .. ..	1
National Assistance Board .. ..	1
	—
Total .. ..	40
	—

The cases were referred to the following departments, some cases being referred to more than one.

Maternity and Child Welfare ..	19
School Health Service .. ..	11
Children's Department .. ..	6
N.S.P.C.C. .. ..	5
None, the cases not requiring further action .. ..	3
Sanitary Inspection Department ..	2
Isolation Hospital .. ..	1
Family Service Unit .. ..	1
	—
Total .. ..	48
	—

Action taken by M.O.H. or Final Decision	Neglected	Not neglected	Total
N.S.P.C.C. to supervise .. ..	9	3	12
No action necessary .. ..	1	8	9
Health Visitor to supervise ..	3	5	8
Children's Officer to deal .. ..	5	—	5
Left City .. ..	1	1	2
Admitted to hospital .. ..	1	—	1
Family Service Unit .. ..	1	—	1
School Medical Officer to deal ..	—	1	1
Mental Health Department to super- vise .. ..	—	1	1
Totals .. ..	21	19	40

The reasons for referral or neglect were as follows :

Reason for Referral	Neglected	Not neglected	Total
Mental cruelty, mainly leaving alone in house .. .. .	10	8	18
Inadequate food, dirty or verminous	4	2	6
General neglect .. .. .	2	4	6
Physical cruelty .. .. .	3	1	4
Beyond control .. .. .	1	1	2
Illness of child .. .. .	—	2	2
Parents quarrelling .. .. .	1	—	1
Illness of mother .. .. .	—	1	1
Totals .. .. .	21	19	40

In addition to the cases of neglect mentioned here there were many where the degree of neglect was not such as to need the help of other departments and referral was not therefore necessary. These were dealt with by the health visitors, school nurses, mental health officers and home helps as part of their ordinary duties.

I should again like to thank the officers of both the statutory and voluntary agencies for their helpfulness in operating these arrangements.

## BLIND PERSONS

I am indebted to Mr. K. J. Powell, Director of Welfare Services, for the information included in this Section.

### Classification according to age (at Date of Registration) of Partially Sighted Persons Registered in 1954

	0-	1-	2-	3-	4-	5-10	11-15	16-20	21-30	31-39	40-49	50-59	60-64	65-69	70+	Total
Cataract :																
Male ..	-	-	-	-	-	-	-	-	-	-	-	-	1	1	6	8
Female ..	-	-	-	-	-	-	-	-	-	-	1	1	-	3	12	17
Glaucoma :																
Male ..	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Female ..	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Retrolental Fibroplasia :																
Male ..	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Female ..	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others :																
Male ..	-	-	-	-	-	1	-	-	-	-	1	1	-	1	2	6
Female ..	-	-	-	-	1	-	-	1	-	1	1	2	1	1	7	15
Totals ..	-	-	-	-	1	1	-	1	-	1	3	4	2	6	27	46

### Classification according to age (at Date of Registration) of Blind Persons Registered in 1954

	0-	1-	2-	3-	4-	5-10	11-15	16-20	21-30	31-39	40-49	50-59	60-64	65-69	70+	Total
Cataract :																
Male ..	-	-	-	-	-	-	-	-	-	-	-	1	1	2	10	14
Female ..	-	-	-	-	-	-	-	-	-	-	1	3	1	6	22	33
Glaucoma :																
Male ..	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2
Female ..	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3
Retrolental Fibroplasia :																
Male ..	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Female ..	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others :																
Male ..	-	-	-	1	1	-	-	-	-	-	3	2	-	1	10	18
Female ..	-	-	-	1	-	1	-	-	1	-	1	2	8	5	8	27
Totals	1	-	-	2	1	1	-	-	1	-	5	8	10	14	55	98



## Follow-up of Registered Blind and Partially Sighted Persons

(i) Number of cases registered during the year in respect of which para. 7(c) of Form B.D.8 recommends :	Cause of Disability			
	Cataract	Glaucoma	Retrolental Fibroplasia	Others
(a) No treatment ..	39	2	1	45
(b) Treatment (medical, surgical or optical) ..	33	3	—	21
(ii) Number of cases at (i) (b) above, which on follow-up action have received treatment .. ..	12	3	—	12

The one case of retrolental fibroplasia was in a child born by caesarian section at 7 months 1 week on account of toxæmia of pregnancy. The birth weight was 3 lb. At the time of registration the child was 11 months old and no further treatment was recommended by the examining ophthalmic surgeon, earlier treatment having failed.

In 12 cases originally recommended for treatment this was later found inadvisable on general medical grounds, or else the patient proved unwilling. Of this total, 9 were cases of cataract. A further 4 cases died shortly after registration and before follow-up action had been taken.

I am enclosing Tables prepared on similar lines to those for 1953, showing the age incidence and the cause of blindness of persons registered during the year.

The number of persons registered as blind during 1954 was much lower than in 1953—98 cases as compared with 137—and the decrease is almost entirely in the “70 and over” age group. There seems no obvious explanation of this fall which reverses the trend shown in previous years.

Once again, half of the 144 cases of blindness or partial blindness registered were due to cataract, and of the cataract cases 70% were aged 70 years or more.

# HOUSING

## New Housing

During the last five years the following houses have been built in Leicester.

	1950	1951	1952	1953	1954	Total
By Housing Committee ..	650	1,216	1,216	1,343	1,530	5,955
By private builders ..	224	179	232	341	629	1,605
Totals .. ..	874	1,395	1,448	1,684	2,159	7,560

The 1,530 houses built by the Corporation were on the following Estates (it will be noted that the Corporation has commenced to build in the County area) :

New Parks .. ..	276
Thurnby Lodge .. ..	62
Evington .. ..	4
Stocking Farm .. ..	160
Thurcaston Road .. ..	150
Goodwood .. ..	30
Eyres Monsell .. ..	173
Braunstone Frith .. ..	169
Mowmacre Hill .. ..	36
Nether Hall (City) .. ..	332
Nether Hall (County) .. ..	100
Coleman Road .. ..	34
Braunstone .. ..	4
	<hr/>
	1,530
	<hr/>

## Slum Clearance

It will be remembered that in my last Report (for 1953) I noted that Slum Clearance in a big way had recommenced after the war and that in that year a Ministerial Inquiry was held into the first area to be dealt with since the cessation of hostilities—the Lewin Street Area (No. 111). In that year also, the next area, the Metcalfe Street Area (No. 114) was represented. This area was the subject of a Ministerial Inquiry on the 18th May, 1954, and confirmation of the Order was received on the 27th August, 1954. Area No. 112, the Brunswick Street Area, a small area of six dwelling houses and three other buildings, was dealt with at the same time as the Lewin Street Area. In 1953 I also submitted Area No. 113, the Pentonville Area, to the Health

Committee, but it was agreed to defer consideration of this area till the whole of the Wharf Street Area had been dealt with. I mention these other areas so that the numerical sequence of areas may be clear.

In December, 1954, one large and four small areas were represented to and accepted by the Health Committee, as follows :

Area No. 115 (Russell Street) C.P.O. : 638 houses, 13 other buildings

Area No. 116 (Christow Street No. 1) C.P.O. : 7 houses, no other building

Area No. 117 (Christow Street No. 2) C.P.O. : 11 houses, 1 other building

Area No. 118 (Dysart Street) C.P.O. : 8 houses, no other building

Area No. 119 (Wharf Street) C.P.O. : 6 houses, no other building

These areas still await Ministerial Inquiry.

In addition, during the year 1954, action was taken under Sections 11 and 13, Housing Act, 1936, and 61 dwelling houses were ordered to be demolished and a further 7 were demolished.

137 houses were represented for closing under Section 25 of the Regulations made under the Leicester Improvement Drainage and Markets Act of 1868.

Under Section 10 of the Local Government (Miscellaneous Provisions) Act of 1953, closing orders were made on seven houses.

There was, thus, during the year, a good deal of activity as regards Slum Clearance. It may therefore be of interest to show how rehousing of families has progressed and the following table shows the position as at the 31st December, 1954. Although on that date, 462 families still awaited rehousing, this was proceeding very actively.



**Houses in Clearance Areas and Compulsory Purchase Orders  
(Confirmed). Position at 31st December, 1954**

Area	Houses in Scheme	Houses Vacated	Awaiting Removal
No. 30 (Fleet Street, No. 3) .. C.P.O. 1935	22	20	2
No. 43 (Bath Street) .. .. C.O. 1936	16	15	1
No. 65 (Sanvey Gate, No. 1) .. C.O. 1937	3	—	3
No. 67 (Causeway Lane, No. 1) .. C.P.O. 1937	245	229	16
No. 70 (Causeway Lane, No. 4) .. C.P.O. 1937	9	4	5
No. 83 (Pasture Lane) .. .. C.O. 1938	296	295	1
No. 89 (Wellington Street) .. C.P.O. 1938	173	21	152
No. 89 (Wellington Street) .. C.O. 1938	77	73	4
No. 97 (Elton Street) .. .. C.O. 1938	6	1	5
No. 111 (Lewin Street) .. .. C.P.O. 1953	249	245	4
No. 114 (Metcalf Street) .. C.P.O. 1953	271	169	102

**Individual Unfit Houses**

Act under which Action taken	Houses represented to Housing Com.	Houses on which Order made	Statutory Undertakings not to Re-Let	Houses vacated	Awaiting removal
Housing Act, 1936 Section 11 ..	248	174	18	159	89
The Leicester Improvement Drainage and Markets Act, 1868—Section 25 ..	212	142	—	142	70
Local Government Miscellaneous Provisions) Act, 1953—Section 10	8	7	—	5	3
Voluntary Undertakings ..	—	—	23	18	5

# **Report on the Chest Clinic for 1954**

by

C. M. CONNOLLY, M.D., M.R.C.P., D.P.H.

This report deals mainly with the work of my predecessor, Dr. James Cuthbert, who left late in 1954, to take up a similar appointment in Glasgow.

The tuberculosis "case-finding" schemes which were reported in detail in 1953 were continued during the year.

## **1. Patients referred by General Practitioners**

From 1st January, 1954, to 31st December, 1954, 2,573 persons were referred to the Clinic for the first time by General Practitioners. From this number, 149 cases of active pulmonary tuberculosis were found, i.e. 57.9 per 1,000 persons examined, and there were still 452 persons under observation for various pulmonary abnormalities on 31st December, 1954.

## **2. Radiological examination of Contacts**

### *(a) Home Contacts of Notified Cases*

691 families were visited by the Health Visitors and 2,014 persons attended for chest X-ray. 18 cases of active disease, i.e. 8.9 per 1,000 persons examined, were found.

### *(b) Business Contacts of Notified Cases*

This scheme was continued as reported in 1953, when written consent to disclosure to the employer, of the nature of the illness, was given by the patient. 365 persons accepted chest X-ray and one case of active disease, i.e. 2.7 per 1,000 persons examined, was found.

### *(c) Home Contacts of Observation Cases*

Access was gained to the homes of 117 families and 223 persons accepted chest X-ray ; one case of active disease, i.e. 4.5 per 1,000 persons examined, was found.

### *(d) Home Contacts of Tuberculin Positive Children*

The home contacts of all young persons under 15 years of age referred to the Clinic by General Practitioners, and found to be Tuberculin positive, were offered chest X-ray ; 39 families were visited by Health Visitors and 82 persons accepted chest X-ray. No cases of active disease were found.

The home contacts of all School Entrants who were found to be Tuberculin positive were also offered chest X-ray ; 151 families were visited and 555 persons accepted chest X-ray. Two cases of active disease, i.e. 3.6 per 1,000 persons examined, were found.

Under this extended scheme of Contact examination, 3,239 persons attended for chest X-ray and 22 cases of active disease were found.

While it is to be expected that the investigation of the home contacts of notified cases will yield the largest number of active cases, I feel that the other contact investigation schemes are well worth while.

## **3. Radiological examination of Expectant Mothers**

851 persons were sent for and 767 persons accepted chest X-ray. One case of active tuberculosis was found, and nine others remained under observation on 31st December, 1954. One of this number has since been found to have active disease.

During 1954, this scheme covered mainly primiparae, but early in 1955, it has been extended to include all expectant mothers in the City of Leicester.

## **4. Mass Radiography Unit**

During the year, 65 cases referred by the Unit were found to have active disease.

448 new cases of tuberculosis were notified in 1954, as compared with 494 in 1953, a total decrease of 46. The pulmonary cases decreased by 63 (392, as compared with 455), the non-pulmonary cases increased by 17 (56, as compared with 39).

The number of deaths was 71, as compared with 73 in 1953. This is the lowest number yet recorded and most of the credit for this must be given to our modern chemotherapeutic agents.



On analysing the Clinic Register, it is found that there is still a large number of cases of chronic tuberculosis, who discharge tubercle bacilli either constantly or periodically. These chronic cases represent the known reservoir of infection in the community and efforts to reduce the infectivity of this group are being actively investigated.

The following table shows the position with regard to the number of new cases diagnosed during the last four years and the size of the known pool of chronic cases.

Year	New Cases of Tuberculosis registered	Tuberculosis Cases on Register	Death-rate per 100,000	Size of Pool of Chronic Infectious Cases
1951	489	2,208	36	775
1952	514	2,329	35	—
1953	497	2,474	25	686
1954	448	2,575	25	681

Our case-finding schemes are designed to see cases with early disease and to offer them treatment to prevent them becoming chronic infectious cases.

B.C.G. vaccination is being offered to all tuberculin negative contacts. The number of persons vaccinated during the year was 717, as compared with 532 in 1953, an increase of 185. We would welcome the extension of B.C.G. vaccination to other susceptibles in the community.

The following table shows the sources from which the cases of tuberculosis, notified in 1954, came.

Transferred in from other Areas	..	..	..	117
Home contacts of notified cases	..	..	..	18
Business contacts	..	..	..	1
Contacts of certain observation cases	..	..	..	1
Referred by the Mass Radiography Unit	..	..	..	65
Referred by the National Service Medical Board	..	..	..	2
Death adjustments	..	..	..	11
School Case-finding Scheme other than Mass Radiography Unit	..	..	..	2
Scheme for X-ray of pregnant women	..	..	..	1
"Lost sight of" case returned	..	..	..	1
Notified by General Hospital doctors	..	..	..	78
Referred to the Clinic by general practitioners	..	..	..	149
Referred by Service doctors	..	..	..	3

One renotification is included in the above figures.

The following table gives the number of new cases, including transfers-in, since 1924 :

1924	..	Pulmonary, 725 ;	Non-pulmonary, 65 ;	Total, 790
1925	..	,, 606 ;	,, 77 ;	,, 683
1926	..	,, 650 ;	,, 77 ;	,, 727
1927	..	,, 700 ;	,, 80 ;	,, 780
1928	..	,, 668 ;	,, 117 ;	,, 785
1929	..	,, 657 ;	,, 77 ;	,, 734
1930	..	,, 582 ;	,, 66 ;	,, 648
1931	..	,, 511 ;	,, 61 ;	,, 572
1932	..	,, 442 ;	,, 69 ;	,, 511
1933	..	,, 438 ;	,, 74 ;	,, 512
1934	..	,, 331 ;	,, 72 ;	,, 403
1935*	..	,, 460 ;	,, 100 ;	,, 560
1936	..	,, 355 ;	,, 79 ;	,, 434
1937	..	,, 345 ;	,, 88 ;	,, 433
1938	..	,, 310 ;	,, 84 ;	,, 394
1939	..	,, 299 ;	,, 84 ;	,, 383
1940	..	,, 343 ;	,, 101 ;	,, 444
1941	..	,, 390 ;	,, 75 ;	,, 465
1942	..	,, 365 ;	,, 85 ;	,, 450
1943	..	,, 359 ;	,, 93 ;	,, 452
1944	..	,, 392 ;	,, 52 ;	,, 444
1945	..	,, 355 ;	,, 60 ;	,, 415
1946	..	,, 440 ;	,, 55 ;	,, 495
1947	..	,, 458 ;	,, 68 ;	,, 526
1948	..	,, 403 ;	,, 78 ;	,, 481
1949	..	,, 410 ;	,, 51 ;	,, 461
1950	..	,, 555 ;	,, 46 ;	,, 601
1951	..	,, 443 ;	,, 46 ;	,, 489
1952	..	,, 473 ;	,, 41 ;	,, 514
1953	..	,, 455 ;	,, 39 ;	,, 494
1954	..	,, 392 ;	,, 56 ;	,, 448

\*City Boundary extended and population increased by 20,000. The figure given for 1935 included 139 pulmonary and 23 non-pulmonary taken over from the County.

The following table gives the sex and age periods of those notified during 1954 :

Age Periods	1-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65+	Total
Pulmonary											
Males ..	6	6	4	8	16	35	21	30	23	12	161
Females ..	4	5	8	17	19	29	18	13	4	6	123
Non-pulmonary											
Males ..	3	3	—	1	1	2	2	1	1	—	14
Females ..	—	—	3	7	6	9	2	3	2	2	34

The following table gives the sex and age periods of those transferred in from other areas during 1954 :

Age Periods ..	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65+	Total
Pulmonary										
Males ..	—	1	3	15	35	14	3	—	2	73
Females ..	—	1	5	13	11	5	—	—	—	35
Non-Pulmonary										
Males ..	1	—	—	1	—	—	—	—	—	2
Females ..	1	—	1	2	2	—	—	—	—	6

The following table gives the number of young adults notified in the age periods 15-19 and 20-24 during the past six years :

Ages	Pulmonary Tuberculosis in Young Adults (Notifications) (15-24) during the past 6 years											
	1949		1950		1951		1952		1953		1954	
	15-19	20-24	15-19	20-24	15-19	20-24	15-19	20-24	15-19	20-24	15-19	20-24
	15-19	20-24	15-19	20-24	15-19	20-24	15-19	20-24	15-19	20-24	15-19	20-24
Males	18	23	18	38	14	32	26	33	23	23	8	16
Females	37	41	43	55	36	46	33	38	24	21	17	19
Total	55	64	61	93	50	78	59	71	47	44	25	35
Total both sexes	119		154		128		130		91		60	

This table shows for the year 1954 there has been a decrease of 31 young adults notified, as compared with the number notified in 1953.

## DEATHS *(Local figures)*

Deaths due to Pulmonary Tuberculosis .. .. 65

Deaths due to non-Pulmonary Tuberculosis .. 6

The pulmonary deaths (65) are three less than in 1953. The non-pulmonary deaths (six) are one more than in 1953.

### *Place of Death.*

Leicester Isolation Hospital and Chest Unit .. 13

Other Institutions .. .. 8

In patients' own homes .. .. 50

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71

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Number of Deaths from Tuberculosis in Leicester in past years.						
Year (1)	Phthisis.		Other Tuberculous Diseases.		Total Tuberculous Deaths.	
	Deaths. (2)	Rate per 100,000 Population. (3)	Deaths. (4)	Rate per 100,000 Population. (5)	Deaths. (6)	Rate per 100,000 Population. (7)
1938	174	66	21	8	195	74
1939	183	70	25	9	208	79
1940	200	77	34	13	234	90
1941	197	74	39	15	236	89
1942	166	64	37	14	203	78
1943	179	70	27	11	206	81
1944	175	68	20	8	195	76
1945	153	60	30	12	183	71
1946	162	60	26	10	188	70
1947	186	67	21	8	207	75
1948	167	60	20	7	187	67
1949	153	54	21	7	174	61
1950	134	47	7	2	141	49
1951	98	34	7	2	105	36
1952	96	33	6	2	102	35
1953	68	24	5	2	73	25
1954	65	23	6	2	71	25

The following tables give the Age, Sex Distribution and Occupation of those dying from Pulmonary Tuberculosis during 1954 :

Age and Sex Distribution of Deaths from Phthisis in 1954.						
Age Period.			Males.	Females.	Total.	
0—1	..	..	—	—	—	
2—4	..	..	—	—	—	
5—9	..	..	—	—	—	
10—14	..	..	—	—	—	
15—19	..	..	—	2	2	
20—24	..	.	1	—	1	
25—34	..	..	1	11	12	
35—44	..	..	7	5	12	
45—54	..	..	7	2	9	
55—64	..	..	13	2	15	
65 +	..	..	8	6	14	
All ages	..		37	28	65	

### Occupations of Persons Dying from Phthisis in 1954.

	M.	F.		M.	F.
<b>Shoe Trade</b>					
Finisher .. ..	1	—	Iron Moulder .. ..	1	—
			Shop Fitter .. ..	1	—
<b>Hosiery Trade</b>			Butcher .. ..	1	—
Winder .. ..	—	1	Postman .. ..	1	—
Machinist .. ..	—	1	Printing Trade .. ..	1	—
Countermand .. ..	1	—	Carpenter .. ..	1	—
			Various .. ..	10	—
Clerks .. ..	—	2	Occupations not stated		
Market Salesmen ..	2	—	(includes married*		
Engineering Trade ..	7	—	women, widows, chil-		
Painters and Decorators	2	—	dren, and persons of		
Stonemason .. ..	1	—	no occupation) ..	5	24
Leather Merchant ..	1	—			
Furnaceman .. ..	1	—	Grand Total ..	37	28

\* A large number of *married* women are engaged in the Hosiery Trade, but these are not included, for in the case of deaths of married women and widows, only the husband's occupation is registered.

### ANALYSIS OF DEATHS.

PULMONARY CASES HAVING HAD INSTITUTIONAL TREATMENT.									
Stage when first examined		Died within one month of notification	Within three months	Within six months	Within twelve months	Within two years	Within three years	Within five years	Over five years
T.B. — ve cases ..	1	—	—	—	—	—	—	—	1
T.B. + ve Stage I ..	—	—	—	—	—	—	—	—	
T.B. + ve Stage II ..	21	—	—	1	1	1	3	5	10
T.B. + ve Stage III ..	9	1	—	1	—	—	—	3	4
Total .. ..	31	1	—	2	1	1	3	8	15

PULMONARY CASES NOT HAVING HAD INSTITUTIONAL TREATMENT.									
Stage when first examined		Died within one month of notification	Within three months	Within six months	Within twelve months	Within two years	Within three years	Within five years	Over five years
T.B. - ve cases ..	—	—	—	—	—	—	—	—	—
T.B. + ve Stage I ..	—	—	—	—	—	—	—	—	—
T.B. + ve Stage II ..	12	—	—	1	1	1	2	3	4
T.B. + ve Stage III ..	13	—	3	2	—	1	3	1	3
Total .. ..	25	—	3	3	1	2	5	4	7

PULMONARY CASES NOT EXAMINED AT OR IN CONNECTION WITH THE  
CHEST CLINIC.

TOTAL	Died within one month of notifica- tion	Within three months	Within six months	Within twelve months	Within two years	Within three years	Within five years	Over five years
2	2	—	—	—	—	—	—	—

These tables account for 58 deaths. In addition, there were six deaths of patients who had been notified as suffering from tuberculosis, and one posthumous notification. This gives a total of 65 pulmonary deaths.

Deaths from Pulmonary Tuberculosis in Children (0-14)  
During the past six years.

Ages.	1949			1950			1951			1952			1953			1954		
	-4	-9	-14	-4	-9	-14	-4	-9	-14	-4	-9	-14	-4	-9	-14	-4	-9	-14
Males ..	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—
Females ..	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total ..	2	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—
Total each year ..	2			—			—			1			—			—		



**Deaths from Pulmonary Tuberculosis in Young Adults (15-24) during the past six years.**

Ages.	1949		1950		1951		1952		1953		1954	
	15-19	20-24	15-19	20-24	15-19	20-24	15-19	20-24	15-19	20-24	15-19	20-24
Males ..	—	2	1	3	1	3	2	1	2	2	—	1
Females ..	5	10	3	5	1	3	2	7	1	1	2	—
Total ..	5	12	4	8	2	6	4	8	3	3	2	1
Total .. (each year)	17		12		8		12		6		3	

There has been a decrease of three in the deaths from Pulmonary Tuberculosis in young adults in 1954 as compared with 1953.

**Non-Pulmonary Tuberculosis Deaths (All Ages)**

Miliary	Meningitis	Abdominal
2	2	2

Deaths from Tuberculous Meningitis in Children (0-14) during the past six years						
	1949	1950	1951	1952	1953	1954
Males .. ..	7	—	2	1	—	—
Females ..	3	2	—	—	1	1
Total .. ..	10	2	2	1	1	1

**Recovered Cases**

During the past year the names of 146 patients were removed from the register as having “recovered”. Of these, 122 were pulmonary and 24 non-pulmonary. Of the pulmonary cases, 40 had had tubercle bacilli in their sputum.

## VISITS

Visits paid by the Health Visitors .. ..	8,747
Visits paid by the Home Nurses .. ..	14,171

## Chest Clinic as the “Centre of Diagnosis”

Notes from general practitioners in Leicester requesting an opinion on 3,347 patients—2,573 were referred for the first time, the remainder were cases who had been before—were dealt with during the past twelve months.

## Clinical Examinations

	Men	Women	Children	Total
First examinations ..	898	657	371	1,926
Re-examinations ..	2,748	2,109	498	5,355

## Contact Examinations

	1949	1950	1951	1952	1953	1954
Number of contacts examined ..	498	1,700	2,406	2,454	2,076	2,602
Number found to have definite tuberculosis .. ..	17	43	32	38	27	20

## Radiological Examinations

1950	1951	1952	1953	1954
11,647	15,146	14,941	18,094	15,453

## Total Attendances

Total attendances .. ..	19,802
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# ANALYSIS OF CASES ON CHEST CLINIC REGISTER.

DIAGNOSIS	Pulmonary			Non-Pulmonary			Total			Grand Totals
	Men	Women	Children	Men	Women	Children	Men	Women	Children	
A. New Cases examined clinically and/or radiologically during the year :										
(a) Definitely T.B.	129	96	25	5	28	8	134	124	33	291
(b) Diagnosis not completed ..	—	—	—	—	—	—	199	198	55	452
(c) Non-Tuberculous	—	—	—	—	—	—	1,076	1,593	508	3,177
B. New contacts examined during the year :										
(a) Definitely T.B.	4	10	6	—	—	—	4	10	6	20
(b) Diagnosis not completed ..	—	—	—	—	—	—	17	22	15	54
(c) Non-Tuberculous	—	—	—	—	—	—	474	590	608	1,672
C. Contacts of Mantoux Positive Schoolchildren										
(a) Definitely T.B.	1	—	1	—	—	—	1	—	1	2
(b) Diagnosis not completed ..	—	—	—	—	—	—	3	4	2	9
(c) Non-Tuberculous	—	—	—	—	—	—	113	164	294	571
D. Cases written off Chest Clinic Register ..										
(a) Recovered ..	66	46	10	14	7	3	80	53	13	146
(b) Non-Tuberculous	—	—	—	—	—	—	1,900	2,529	1,488	5,917
E. Number of cases on Clinic Register on 31st December, 1954 :										
(a) Definitely T.B.	1,151	1,000	219	67	100	38	1,218	1,100	257	2,575
(b) Diagnosis not completed ..	—	—	—	—	—	—	245	252	83	580
1. Number of cases on Clinic Register on 1st January, 1954, including observation cases ..	3,036			2. Number of cases transferred in from other areas ..			112			
3. Number of cases transferred to other areas, cases not desiring further assistance under the scheme and cases "lost sight of" ..	112			4. Cases written off during the year as dead (all causes) ..			67			
5. "Lost sight of" cases returned	1			6. Number of attendances at Chest Clinic ..			19,802			
7. Number of films taken during the year ..	15,453			8. Number of persons receiving B.C.G. vaccine, during the year ..			717			
9. Number of visits by Health Visitors to homes for Clinic purposes ..	8,747			10. Number of patients visited by Home Nurses ..			358			
11. Number of patients who have received drug treatment outside the Hospital during the year ..	358			12. Number x-rayed under the scheme for x-ray of pregnant women ..			767			
13. Number of patients to whom free milk was granted by Local Health Department ..	256			14. Number of patients to whom beds and/or bedding have been loaned by the Local Health Department ..			40			



# LEICESTER AREA MASS RADIOGRAPHY UNIT

## REPORT FOR 1954

I am indebted to Dr. E. M. Quinn, Medical Director, for the following Report :

Six months were spent by the Unit X-raying in the City. The groups X-rayed included public sessions, factory, warehouse and office groups, mental hospitals, doctors' referrals and school-children from 13 years of age and upwards. Sessions were also set aside for the attendance of teachers and school staffs from all schools, approximately 1,000 of this group attended.

In accordance with the Ministry of Education requirements all intending teachers leaving the two City Training Colleges and others entering the teaching profession were X-rayed.

Public Sessions were held throughout January and February. During these sessions 9,503 were X-rayed ; 30 active cases of pulmonary tuberculosis were found (three per 1,000 X-rayed). 3,401 attended for the first time, i.e. 35% (1953, 39%). In addition certain organised groups were X-rayed during these two months.

When carrying out public sessions the Unit was available four afternoons and two evenings per week. It was found that, although the sessions at the commencement of the survey were reasonably well filled, those during the last few weeks were very overcrowded, causing inconvenience to the public and difficulties for the staff of the Unit. In view of this experience consideration will have to be given to the possibility of arranging sessions by appointment.

In August the Unit visited the Abbey Park Flow Show in conjunction with the Health Department's Exhibition. Unfortunately the weather, which was very bad on the first of the two days had an adverse effect on the attendance. Total number X-rayed, 829 (56% of which were first timers). Number of active pulmonary tuberculosis, two.

There was an increase of 13,753 persons X-rayed in 1954 over 1953. This was due to a better response from the public and in more time being available to the City.

## General Statistical Details, including School Children

		<i>Males</i>	<i>Females</i>	<i>Total</i>
Miniature X-rays taken	..	16,590	17,695	34,285
Large films taken	..	1,734	1,607	3,341
Patients examined by Medical				
Director	..	390	351	741
Tuberculosis : Active	..	43	27	70
Inactive	..	88	65	153
Neoplasm	..	6	5	11
Bronchiectasis	..	11	16	27
Pneumoconiosis	..	4	—	4
Cardiovascular lesions	..	20	42	62

34,285 X-rayed : 70 active cases : 0.2 per cent.

**Report on Maternity  
and Child Welfare**  
**for the year 1954**

by

E. B. BERENICE HUMPHREYS, M.B. Ch.B. (Edin.)  
(Maternity and Child Welfare Medical Officer)

**STATISTICS**

**Birth-rate**

There were 2,208 male births and 2,205 female births, a total of 4,413, giving a birth-rate of 15.4 per 1,000 population.

Of the total births (4,413), 240 were illegitimate (122 males and 118 females), giving an *illegitimate birth-rate* of 0.8.

**Stillbirths**

There were 105 stillbirths, 54 males and 51 females.

From detailed records compiled of all stillbirths, the following summary has been made :

Confined in hospital	..	..	..	..	81
Confined at home	..	..	..	..	24
Condition of the foetus :					
(a) Macerated	..	..	..	..	57
(b) Not macerated	..	..	..	..	48
Duration of pregnancy :					
(a) 28 weeks	..	..	..	..	2
(b) 29    ,,	..	..	..	..	2
(c) 30    ,,	..	..	..	..	3
(d) 31    ,,	..	..	..	..	2
(e) 32    ,,	..	..	..	..	4



(f) 33	„	..	..	..	..	4
(g) 34	„	..	..	..	..	10
(h) 36	„	..	..	..	..	10
(i) 37	„	..	..	..	..	2
(j) 38	„	..	..	..	..	10
(k) 39	„	..	..	..	..	6
(l) 40	„	..	..	..	..	40
(m) 41	„	..	..	..	..	1
(n) 42	„	..	..	..	..	9

Parity of the mother :

Para 1	..	..	..	..	..	38
„ 2	..	..	..	..	..	14
„ 3	..	..	..	..	..	16
„ 4	..	..	..	..	..	19
„ 5	..	..	..	..	..	6
„ 6	..	..	..	..	..	5
„ 7	..	..	..	..	..	1
„ 8	..	..	..	..	..	2
„ 10	..	..	..	..	..	3
„ 15	..	..	..	..	..	1

The causes of the stillbirths were :

Ante partum hæmorrhage	..	..	..	9
Abnormal presentation	..	..	..	17
Toxæmia of pregnancy	..	..	..	12
Premature separation of placenta		..	..	5
Placental insufficiency	..	..	..	2
Cord round neck	..	..	..	4
True knot in cord	..	..	..	2
Maternal disease	..	..	..	7
Hydramnios	..	..	..	3
Difficult delivery	..	..	..	6
Malformation of fœtus	..	..	..	9
Post maturity	..	..	..	2
Prematurity	..	..	..	2
Lack of attention at birth	..	..	..	1
Asphyxia	..	..	..	2
Atelectasis	..	..	..	2
Premature inspiration	..	..	..	1
Early rupture of membranes	..	..	..	1
Not known	..	..	..	18

Detailed records concerning stillbirths have been kept and have been modified from time to time.

From an analysis of the stillbirths, the following observations are made :

- (1) A Municipal Midwife was in sole charge of the confinement and puerperium in only 12 of the 105 stillbirths.
- (2) Concerning the 81 stillbirths reported from Hospital, 14 were admitted as emergencies and were not booked for hospital confinement.
- (3) The duration of pregnancy was 40 weeks in no less than 40 of the stillbirths.
- (4) The pregnancy ended in a stillbirth in the confinement of 38 women pregnant for the first time and there is a marked reduction in the incidence as the parity increases.

It is only by collecting information over a number of years that any definite conclusions will be possible concerning the persistence of the high rate of stillbirths.

### Infant Mortality Rate

Number of deaths in infants under one year	..	120
Corrected number of births	.. ..	4,413
Infant death-rate	.. ..	27.2

From our local figures the following summary of 116 of the infant deaths has been made (the difference being accounted for by four deaths which occurred outside the city area).

Onset of illness :					
Home	..	..	..	..	69
Hospital	..	..	..	..	47
Place of death :					
Home	..	..	..	..	31
Hospital	..	..	..	..	85
Parity of mother :					
Para 1	..	..	..	..	32
„ 2	..	..	..	..	35
„ 3	..	..	..	..	22

„ 4	..	..	..	..	..	12
„ 5	..	..	..	..	..	3
„ 6	..	..	..	..	..	6
„ 7	..	..	..	..	..	1
„ 8	..	..	..	..	..	1
„ 9	..	..	..	..	..	1
„ 10	..	..	..	..	..	1
„ 11	..	..	..	..	..	1
„ 13	..	..	..	..	..	1

Duration of illness :

Under 24 hours	..	..	..	..	51
1 day—1 week	..	..	..	..	45
1—2 weeks	..	..	..	..	4
2—4 weeks	..	..	..	..	2
1—2 months	..	..	..	..	4
2—3 months	..	..	..	..	2
3—4 months	..	..	..	..	4
5—6 months	..	..	..	..	1
8—9 months	..	..	..	..	2
10—11 months	..	..	..	..	1

Type of home :

Well-to-do ..	..	..	..	..	5
Comfortable	..	..	..	..	66
Poor ..	..	..	..	..	45
Attended Child Welfare Centre ..	..	..	..	..	20

From the above information, the following observations are made :

- (1) The initial illness occurred more frequently at home, but more than half the children were transferred to hospital for treatment.
- (2) The duration of the illness was under 24 hours for 51 of the children who died and in the additional 45 the duration of illness was between one day and one week.
- (3) The infant death was of the first pregnancy in 35 cases and again the incidence shows a decrease as the parity of the mother increases.
- (4) Concerning the type of home, 66 of these children had comfortable homes.
- (5) The illness which caused the death was present from birth in no less than 82 of the infants.



From an analysis of the causes of death, according to our local records and not for comparison with the Registrar-General's figures, the following observations are made :

- (1) Congenital malformations accounted for 23 of the deaths.
- (2) Prematurity accounted for 35 of the deaths, all of which occurred during the first week of life.

Details of the Premature Infants will be found on page 93 of the Report.

- (3) Violence accounted for four deaths ; two of the infants died of suffocation caused by turning on to the face while asleep in a cot, the third infant was dead when recovered from the canal, and the fourth infant was found dead in a passenger train.
- (4) Of the 120 deaths, 71 occurred during the first week of life.

Maternal Mortality

Number of deaths during the year	..	..	2	
From Puerperal Sepsis	..	..	1	
From other accidents and diseases of pregnancy and parturition		..	1	
Total	..	..	2	
			1954	1953
Rate per 1,000 live and stillbirths	..		0.44	0.85
Puerperal Sepsis Rate	..	..	0.22	—
Figures for England and Wales :				
Maternal Mortality Rate	..	..	0.69	0.76
Puerperal Sepsis Rate	..	..	0.14	0.16

Concerning the deaths, both of which occurred in Hospital, the causes were :

- (1) Septicæmia, uterine sepsis following a miscarriage.
- (2) Death by misadventure following the administration of a general anæsthetic for a necessary surgical operation following an abortion. (Coroner's verdict.)

TABLE 8. City of Leicester

# INFANT MORTALITY DURING THE YEAR 1954

Net Deaths from stated Causes at various Ages under 1 year of Age.  
(LOCAL FIGURES)

CAUSE OF DEATH	Under 1 Wk.	1 to 2 Weeks	2 to 3 Weeks	3 to 4 Weeks	Total under 1 Month	1 to 3 Mths.	4 to 6 Mths.	7 to 9 Mths.	10 to 12 Mths.	Total Deaths under 1 Year
All Causes Certified .	71	3	1	1	76	21	12	8	3	120
Congenital Malformations..	12	1	—	—	13	6	1	2	1	23
Birth Injuries .. ..	11	—	—	1	12	—	—	1	—	13
Atelectasis .. ..	4	1	—	—	5	1	—	—	—	6
Premature Births .. ..	35	—	—	—	35	—	—	—	—	35
Diarrhœa, etc. .. ..	—	—	—	—	—	2	1	—	—	3
Convulsions .. ..	—	—	—	—	—	1	—	1	—	2
Asphyxia Neonatorum ..	—	—	—	—	—	—	—	—	—	—
Hæmolytic Disease of the Newborn ..	5	1	1	—	7	—	—	—	—	7
Pemphigus Neonatorum ..	—	—	—	—	—	—	—	—	—	—
Rickets .. ..	—	—	—	—	—	—	—	—	—	—
Hæmorrhagic Disease of the Newborn ..	2	—	—	—	2	—	—	—	—	2
Tuberculous Meningitis ..	—	—	—	—	—	—	—	—	—	—
Abdominal Tuberculosis ..	—	—	—	—	—	—	—	—	—	—
Other Tuberculous Diseases	—	—	—	—	—	1	—	—	—	1
Meningitis ( <i>Not Tuberculous</i> )	—	—	—	—	—	1	—	1	—	2
Bronchitis .. ..	—	—	—	—	—	3	2	—	1	6
Pneumonia (all forms) ..	—	—	—	—	—	3	3	1	1	8
Syphilis .. ..	—	—	—	—	—	—	—	—	—	—
Intussusception & Intestinal Obstruction .. ..	—	—	—	—	—	—	1	—	—	1
Heart Disease .. ..	—	—	—	—	—	—	1	—	—	1
Whooping Cough .. ..	—	—	—	—	—	—	—	—	—	—
Measles .. ..	—	—	—	—	—	—	—	—	—	—
Cerebro-spinal Fever ..	—	—	—	—	—	1	—	1	—	2
Ant. Poliomyelitis .. ..	—	—	—	—	—	—	—	—	—	—
Diphtheria .. ..	—	—	—	—	—	—	—	—	—	—
Other Infective Diseases ..	—	—	—	—	—	1	1	1	—	3
Violent Causes .. ..	2	—	—	—	2	—	2	—	—	4
Other Causes .. ..	—	—	—	—	—	1	—	—	—	1

Net Births in the Year
{
legitimate, 4,173  
illegitimate, 240

Net Deaths in the Year of
{
legitimate infants, 107  
illegitimate infants, 13

# NATIONAL HEALTH SERVICE ACT, SECTION 22

## CARE OF MOTHERS AND YOUNG CHILDREN

### Health Visiting

(Corresponding figures for the previous year are shown in brackets)

Number of first visits to children under one year old ..	4,452	(4,858)
„ „ revisits to children under one year old ..	17,221	(17,892)
„ „ visits to children one to five years old ..	27,579	(31,562)
„ „ visits to cases of Ophthalmia Neonatorum ..	15	(25)
„ „ first visits to ante-natal cases .. ..	227	(251)
„ „ other visits to ante-natal cases .. ..	133	(126)
„ „ visits to tuberculous patients .. ..	6,647	(6,268)
„ „ visits re Mantoux testing .. ..	297	(414)
„ „ visits concerning infant deaths and stillbirths ..	52	(65)
„ „ visits concerning applications for maternity bed accommodation .. ..	905	(1,246)
„ „ visits concerning after-care .. ..	186	(312)
„ „ visits to diabetes patients .. ..	1,549	(344)
„ „ visits concerning applications for convales- cent home accommodation .. ..	136	(144)
„ „ other visits (no access) .. ..	9,966	(10,959)
„ „ other visits (not classified) .. ..	4,946	(2,511)
Totals .. ..	74,311	(76,977)

### Attendances of Health Visitors at Clinic Sessions :

Child Welfare Centres .. ..	2,747
Ante-Natal Clinics .. ..	621
Birth Control Clinic .. ..	210
School Clinics (including Minor Ailments and Scabies) ..	3,433
Diphtheria Immunisation and Vaccination Clinics ..	33
Chest Clinic .. ..	335
Occupation Centre .. ..	30
Hospital Sessions .. ..	423
Deaf Clinic .. ..	152
Others .. ..	198
Total .. ..	8,182

The figures show a slight decrease in the amount of visiting done, as compared with the previous year when there was a marked increase. This requires some explanation in view of the fact that for a considerable part of the year there were more health visitors than ever on the staff. The following factors have to be borne in mind :

- (1) Health visitors have come to accept and to implement the system of selective visiting and do not pay numerous routine visits to homes where they find conditions and child-care reasonably satisfactory.

- (2) All health visitors appointed now undertake some duties in the School Health Service so that they are not employed whole-time in the Maternity and Child Welfare Department, as will be noted in the attendances at School Clinics.
- (3) Certain health visitors have devoted more time to specialised work, e.g. Deafness in the Young Child, and have carried out screening tests in Day Nurseries and Child Welfare Centres.

The emphasis will, therefore, be on selective visiting and specialised work and not on the quantity of work undertaken.

## Deafness in the Young Child

Details of the establishment and the scope of this pioneer clinic were included in the report for 1952.

The following is a summary of the work during the year under review :

Number of sessions held (for Ascertainment and for Training)	..	..	..	..	..	58
Number of individual children referred (incl. 22 from other Local Authorities)	..	..				39
Number of attendances made by the children	..			..	..	353
Average attendance of children at each clinic	..			..	..	6

### Source of Recommendation :

Medical Staff of Health Departments	..	..				30
Ear, Nose and Throat Surgeons (direct)	..	..				5
Pædiatricians	..	..	..	..	..	1
Health Visitors	..	..	..	..	..	2
Day Nursery Staff	..	..	..	..	..	1
Mental Health Department	..	..	..	..	..	—
						—
						39
						—

Number of children who have attended for the first time	..					39
Number of children who, after adequate investigation, have been shown to have normal hearing	..	..				19

### Results of Tests of Hearing :

Children who have acuity over the whole range of speech frequencies	..	..	..	..	..	19
Children who have hearing over part of the range of speech frequencies	..	..	..	..	..	13
Children who possess merely an island of hearing	..					3
Children who have not yet responded reliably to tests	..					1
Children who have not yet responded to any sound stimuli	..	..	..	..	..	3



### *Results of Guidance and of Training :*

Children whose parents have had guidance about home training over a period of time, varying from one to nine months. (This is in addition to the guidance during tests of hearing)	.. .. .	14
--	---------	----

Children who have been recommended to a School for the Deaf :

(a) Before having Home Training	.. ..	1
(b) After having Home Training	.. ..	10
Children who are lip reading	.. .. .	7
Children who are watching for speech, but cannot as yet be said to be lip reading	.. .. .	3
Children who are having auditory training with Hearing Aids in connection with lip reading	.. ..	10

Children who are already beginning to talk :

(a) Those who have some naturally acquired speech..		4
(b) Those who are deaf who, through lip reading, have begun to frame with their lips, a few words in phrases..	.. .. .	2
Children over the age of 5 years, known to be deaf, who were referred for special investigations	.. ..	5

Summary of the ages of the 39 children who attended the clinic for the first time in 1954.

The ages of the three children who were watching for speech were 10 months, 18 months and 4 years old respectively.

The ages of the seven children who have begun to lip read range from 2 years to 5 years. (The older children have double defects).

The ages of the 10 children who are having auditory training range from 2 years to 5 years.

The following are details of the 500 Screening Tests carried out during the year :

Number of children tested up to 31st December, 1954	..	500
Number of children who passed at the first test	..	486
Number of children who failed at the first test	..	14
Of the failures, the number who passed at the second test		8
Of the failures, the number who passed at the third test		1
Number of children still awaiting further test	.. ..	4
One child who failed at the first test was passed on to the Clinic for the Young Deaf Child without further screening.		

The above total was made up as follows :

Under 1 year	..	..	..	..	210
12—15 months		..	..	..	84
15—18 months		..	..	..	60
18 months—2 years		..	..	..	91
2—3 years	..	..	..	..	39
3—4 years	..	..	..	..	11
4—5 years	..	..	..	..	5
					<hr/> 500 <hr/>

Of the 500 children tested, 305 were tested at Infant Welfare Centres and 195 were tested at Day Nurseries.

The year's work has followed the pattern laid down at the inception of the clinic but has been extended to include screening tests of the hearing of children as soon as possible after they have reached the age of nine months. These tests are carried out by the Health Visitors attached to the clinic who have received special training in this work under the guidance of Mrs. Ewing. It is now recognised that this is the correct order of procedure and the children who "fail" in two screening tests are then referred to the diagnostic clinic for the more detailed and refined tests. At present there are four Health Visitors who are competent to carry out this specialised work and it is intended that more of them should be trained at the clinic so that screening tests will become a routine procedure at Child Welfare Centres and Day Nurseries. In this way, the incidence of deafness will be known and ascertainment made at the earliest possible age. The children with this handicap will then have the advantage of training and guidance at a very much younger age than has hitherto been possible, so fulfilling the ultimate purpose of the clinic, viz., that the deaf child may not be dumb.

While recognising the success of the specially selected Health Visitors who have applied themselves so ably to this work after in-service training, I am sure that they in turn would wish to acknowledge the great debt we owe to Professor and Mrs. Ewing of Manchester for their continued interest in our work, as instanced by the special visit they paid on 1st May to give a dramatic and convincing demonstration of their methods and of the successful handling of deaf children by the Health Visitors to an audience of some 200 personnel in the Lord Mayor's Rooms, kindly lent for the occasion. Mrs. Ewing continued to pay visits to the clinic at less frequent intervals than hitherto and her expert criticism and kindly interest are an inspiration to all of us associated with this work.

## Ante-natal Clinics

The number of ante-natal attendances during the year 1954 was as follows :

(Corresponding figures, for the previous year are in brackets)

Clinic	No. of Sessions	ATTENDANCES				
		First Visits		Re-Visits		Total
Cort Crescent .. Tues.	49 (49)	142 (151)	752 (700)	894 (851)	18	
Crescent Street .. Tues.	49 (48)	118 (140)	438 (536)	556 (676)	11	
Causeway Lane .. Wed.	53 (52)	111 (127)	541 (688)	652 (815)	12	
	Fri.	51 (50)	465 (606)	599 (764)	12	
Belgrave Hall .. Mon.	49 (49)	154 (167)	517 (636)	671 (803)	14	
	Wed.	53 (52)	451 (735)	575 (886)	11	
Newby Street .. a.m.	53 (50)	174 (155)	585 (614)	759 (769)	14	
	p.m.	53 (50)	502 (582)	675 (750)	13	
Braunstone Avenue ..	49 (49)	111 (105)	515 (522)	626 (627)	13	
Aikman Avenue .. ..	49 (49)	124 (164)	679 (861)	803 (1025)	16	
Southfields Drive .. a.m.	51 (9)	80 (19)	369 (103)	449 (122)	9	
	p.m.	51 (9)	569 (170)	663 (188)	13	
Totals .. ..	610 (598)	1539 (1742)	6383 (7853)	7922 (9595)	13	

There has been a falling off in the number of patients attending at certain clinics, partly due to the movement of population on to new and existing housing estates. Some of the patients attend at the request of their own doctor for the taking of blood samples only, but this is an important investigation during pregnancy and the services of the department are freely placed at the disposal of the general practitioner/obstetrician. In addition, a copy of the report on all blood samples taken at the ante-natal clinics is sent to the patient's own doctor, whether he is booked to attend the confinement or not.

## Post-natal Clinic

Arrangements were made during the year to establish one central post-natal clinic for those patients attended by a midwife only, that is, where a doctor was not booked and was not present at the delivery.



# PREMATURITY

Number of premature live births notified (as adjusted by transferred notifications):  
 (a) In Hospital .. 186. (b) At Home .. 102. Total .. 302  
 (c) In Private Nursing Homes .. 14.  
 Number of premature still-births notified (as adjusted by transferred notifications):  
 (a) In Hospital .. 37. (b) At Home .. 10. Total .. 49  
 (c) In Private Nursing Homes .. 2

WEIGHT AT BIRTH	PREMATURE LIVE BIRTHS															PREMATURE STILL-BIRTHS		
	Born in Hospital			Born at home and nursed entirely there			Born at home and transferred to Hospital on or before 28th day			Born in Nursing Home and nursed entirely there			Born in Nursing Home and transferred to Hospital on or before 28th day			Born in Hos- pital	Born at Home	Born in Nurs- ing Home
	Total	Died within 24 hrs. of birth	Sur- vived 28 days	Total	Died within 24 hrs. of birth	Sur- vived 28 days	Total	Died within 24 hrs. of birth	Sur- vived 28 days	Total	Died within 24 hrs. of birth	Sur- vived 28 days						
(a) 3 lb. 4 oz. or less (1,500 gm. or less)	20	8	5	4	4	-	6	5	-	-	-	-	-	15	6	2		
(b) Over 3 lb. 4 oz. up to and including 4 lb. 6 oz. (1,500—2,000 gm.)	48	8	36	6	-	6	7	-	4	3	-	3	-	12	1	-		
(c) Over 4 lb. 6 oz. up to and including 4 lb. 15 oz. (2,000—2,250 gm.)	43	-	41	9	1	8	6	-	6	5	-	5	-	5	2	-		
(d) Over 4 lb. 15 oz. up to and including 5 lb. 8 oz. (2,250—2,500 gm.)	75	-	74	62	1	61	2	-	1	6	-	6	-	5	1	-		
TOTALS ..	186	16	156	81	6	75	21	5	11	14	-	14	-	37	10	2		



## Premature Infants

### Circular 20/44 of the Ministry of Health, dated 22nd March, 1944

In the Table, there are 21 infants who were born at home and transferred to hospital and of these 11 survived up to the 28th day after birth.

Of the 81 premature infants born at home and remaining at home, 75 survived to the 28th day. The remaining six all died within 24 hours of birth.

This survival rate of premature infants born at home is a tribute to the care and skill given to them by the midwives.

The special equipment collectively known as the "Sorrento" outfit was made available for such infants and, in close co-operation with the City Ambulance Service personnel, is promptly available on demand by the midwives. It has to be reported that the demand is still not as great as was anticipated. It would seem that the midwives have improvised for so long and their results have been so successful that they do not easily undertake the additional responsibility for the safety and the care of the equipment in some homes.

Concerning the 14 premature infants who remained in a Nursing Home, they all survived to their 28th day.

Concerning the 186 premature infants born in Hospital, 156 survived to the 28th day. Of the 30 who did not survive, 16 died within 24 hours of birth.

## Ophthalmia Neonatorum, 1954

Cases notified during the year	..	..	2
Visited by Health Visitors	..	..	2
Removed to hospital	..	..	—
Treated in hospital	..	..	—
Result of Treatment :			
Vision unimpaired	..	..	2
,, impaired	..	..	—
,, lost	..	..	—
Still under treatment at end of year		..	—
Patients died	..	..	—
Removed from district	..	..	—
Total	..	..	2

## Birth Control Clinic

The following figures refer to the year 1954 :

	<i>City</i>	<i>County</i>	<i>Total</i>
Number of patients who sought advice ..	220	124	344
Number of patients who were accepted for advice .. .. .	217	122	339
Number of patients who were refused advice	3	2	5

Concerning the 339 women accepted for advice, the following are the medical reasons for which the advice was given.

<b>Husband :</b>	<i>City</i>	<i>County</i>	<i>Total</i>
Active Tuberculosis .. ..	8	—	8
Other diseases .. ..	6	1	7
<b>Children :</b>			
Congenital defect .. ..	2	2	4
<b>Patient :</b>			
Nervous debility .. ..	14	6	20
General debility .. ..	105	61	166
Pulmonary Tuberculosis .. ..	7	3	10
Heart disease .. ..	5	3	8
Kidney trouble .. ..	2	1	3
Toxæmia of pregnancy .. ..	13	7	20
Obstetric complications .. ..	18	14	32
Gynæcological conditions .. ..	4	3	7
Various other conditions .. ..	33	21	54

### Cases in which advice was refused

Advice was refused to five women, three City patients and two County patients. In three of them there were no medical grounds for the advice to be given, one was pregnant and one had a gynaecological condition.

## Schools for Mothers and Child Welfare Centres

(Corresponding figures for the previous year in brackets)

Number of Child Welfare Centres	25	(25)
Number of Medical Weekly Sessions	28	(28)
Number of Sessions held ..	1,418	(1,389)
Total attendances of Mothers	53,567	(56,155)
Total attendances of Children:		
Under one year old .. 44,020 }	62,636	(46,352) }
Over one year old .. .. 18,616 }		(19,530) }
First visits of Children :		
Under one year old .. 3,551 }	4,145	(3,917) }
Over one year old .. .. 594 }		(577) }
Number of sessions at which a doctor was present ..	1,370	(1,348)
Number of children seen by a doctor .. .. .	21,151	(23,878)

There were no new sessions as such opened during the year, though plans were made to provide a more convenient service on some of the new housing estates.

Now that we anticipate that the Health Visiting staff will continue to approach the establishment figure, it has been possible to give serious thought to resuming collective teaching and to introduce group discussions amongst the mothers where the premises lend themselves to this purpose and it is hoped to report a definite advance in this work next year.

The average number of children seen by a doctor at each session was 15.4.

From clinical material compiled at five Child Welfare Centres which he attended each week, Dr. Leo Hahn has carried out a study of the rate of growth during the first five months of life. His findings are commended especially to those who have been teaching the accepted dictum that a baby doubles its birth weight at five or six months.

Dr. Hahn's paper was published in the *Medical Officer* on the 11th February, 1955, and the following is a reprint :

## **DOUBLING THE BIRTHWEIGHT**

### **A Study of the Rate of Growth during the First Five Months of Life**

By LEO HAHN, M.D.

From the Maternity and Child Welfare Department, City of Leicester

In a comparative study of the growth of animals the German physiologist Rubner introduced the term "*Verdoppelungszeit*", that is, the period needed, for an animal to double the birthweight as a convenient measure of velocity of postnatal growth. He found this time—termed in this paper for shortness "doubling birthweight time" (DBT)—to be related to the size of the animal, linking it with the protein content of the respective animal's milk, and stated as DBT for the rabbit six, for the dog and cat nine, for cattle 47, and for the horse 60 days. For man he postulated a DBT of not less than 188 days. This very high value for the infant had apparently found its way into pædiatric teaching and is still widely used in textbooks as the statement that the infant doubles the birthweight at five or even six months. This "law" implies a hardly existent relationship between birthweight and weight-increase during the first six months of life (Parfit 1951, and Simpson 1952) and is even wrong for the "average" baby with a birthweight of about 7.5 lb. (3.410 kg.).



If we accept the general assumption that a normal baby increases his weight by 1 oz. (28.4 g.) per day—excluding the first 10 days of life—for the first 120 days and by  $\frac{2}{3}$  oz. or 19 g. for the following 120 days, in other words needing  $1\frac{1}{2}$  days for an increase of 1 oz., two simple equations give the DBT in days :

(1) For the infant up to 7 lb. (3.180 g.) birthweight (bwt.) :

DBT=bwt. (oz.)+10 in days, or 16 bwt. (lb.)+10.

In kg. : DBT=35.2 bwt. (kg.)+10.

This equation makes it clear that up to the birthweight of 7 lb. the doubling time will be under 122 days, i.e. below four months.

(2) For infants with a birthweight over 7 lb. :

DBT=1.5 bwt. (oz.)—45\* which can be expressed as DBT=1.5 (bwt.—30), or in lb. : DBT=24 (bwt. lb.—2) approximately.

In kg. the equation becomes : DBT=52.8 (bwt. kg.—0.9).

Using this equation we obtain a DBT of 144 days or  $20\frac{1}{2}$  weeks for an infant of 8 lb. at birth, a value just under five months.

In fact, however, the healthy infant's average post-natal rate of gain in weight is higher than 1 oz. (28.4 g.) per day during the first three or four months of life. In Hammond's (1952) paper this gain amounts in boys for birthweight-groups between 5 lb. 9 oz. and 7 lb. 8 oz. to 1 oz. for the first 16 weeks ; boys show an average increase of 6 lb. 6 oz. to 7 lb. 13 oz. in 16 and 20 weeks respectively, proving that, expressed in terms of DBT, birthweight groups covering these values had attained their DBT in 112 and 140 days respectively. Wickes (1952) in his series of 503 infants showed that no fewer than 32 per cent had gained more than 1.3 oz. (36.9 g.) per day and eight infants had gained 2 oz. (56.8 g.) and more. In an unpublished sample of 82 breast-fed infants observed from 2–13 weeks after birth in the year 1953, I found a range of daily gain between 0.5 and 1.7 oz. (14.2 to 48.3 g.) with a mean of 1.11 oz. (31.5 g.) and a standard deviation of 0.224 oz. (6.36 g.). Sixty-five, i.e. more than three-quarters, of these infants showed a daily gain between

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\*This derives from : DBT=120+1.5 (bwt. oz.—110), 120 days being the time needed for completing a gain of 110 oz. Calculations based on the same principle suggest the two following formulæ for an approximate estimate of expected gain in weight :

For infants between 4 and 8 months : gain (oz.)=5 (weeks+5).

For infants between 8 and 12 months : gain (oz.)=3.5 (weeks+22), according to a gain of  $\frac{1}{2}$  oz. per day.



0.815 and 1.393 oz. (23.15 to 39.62 g.), and 48, more than one-half of them, a daily gain between 1.0 and 1.2 oz. (28.4 to 34 g.).

In this paper I propose to report on the period 320 infants in Leicester Child Welfare Centres needed for doubling their birthweight. The data were collected during the years 1952 and 1953 in five Welfare Centres under my care.

### *Material and Method*

The five Welfare Centres in which the measurements were taken serve districts with different social structure but the infants on the whole, as would be expected, belong mainly to families of social classes III-V. No attempt was made to select the infants according to family size, birth rank, age of mother or housing conditions, the intention being to give a fairly appropriate cross-section sample of an urban infant population attending infant welfare centres. All infants whose birthweight had been ascertained in hospital or a nursing home, and who in the course of their regular attendance at the centre turned up at the time their birthweight had been doubled, were recorded, provided they had no congenital malformations and no history of illness or feeding upsets during the period they had passed. The results, therefore, apply to healthy infants. About two-thirds of them were breast-fed for at least two months and quite a few for five to six months. A sampling bias unavoidable in the nature of the survey lies, it must be admitted, in the fact that only regular visitors to the Centre form the basis of the sample, which means that, *sit venia verbo*, infants rather well cared for and whose mothers took the advantage of a regular advice by the welfare centre's personnel were used for recording. The results, therefore, should be considered as optimal in the circumstances provided.

The infants were weighed naked on the usual balance scales by health visitors and under their supervision by pupil midwives. The weights were taken in the early afternoon and it was endeavoured that the bladder be emptied before weighing.

### *Results*

The period needed for doubling the birthweight in weeks was plotted over the birthweight-groups with a span of 1 lb. and the results obtained from the bi-variate distribution table are given in Tables I, II, III and IV. For convenience, the DBT has a four-weeks span in Table II, but the computations have been made on one-week-span data. The means and standard deviations for all the arrays of  $y$ —DBT—over  $x$ —birthweight in lb.—were ascertained and together with the range of DBT for each birthweight group tabulated in Table III.

The means of the birthweights, as is shown in Table I, are  $7.6 \pm 0.084$  ( $3.454 \pm 0.04$  kg.) for boys and  $7.2 \pm 0.08$  ( $3.273 \pm 0.036$  kg.) for girls, and the respective standard deviations : 1.1 lb. (0.5 kg.) and 0.98 lb. (0.445 kg.). There is a greater proportion of lower birthweight present in the female group of the infants.

TABLE I  
*Number, Sex and Birthweight Frequency Distribution in 320 Infants*

Birth-weight lb. kg.	5- 2.270-	6- 2.730-	7- 3.180-	8- 3.636-	9- 4.090-	10 4.545-5	Total	M.	S.D.
Boys	6	50	63	30	19	3	171	$7.6 \pm 0.084$	1.1
Girls	16	48	55	25	5	—	149	$7.2 \pm 0.080$	0.98
Total	22	98	118	55	24	3	320	$7.4 \pm 0.059$	1.06

For the whole group (Table II) there is a mean of DBT of 18.3 weeks or 128 days ; for the boys the mean is 17.98 weeks or 126 days, for the girls 18.7 weeks or 131 days. Sixty-five per cent of the whole series, 62 per cent of the boys and 68 per cent of the girls, double the birthweight between 14 and 22 weeks, i.e., 98 and 154 days ; only 7.5

TABLE II  
*Frequency Distribution of Birthweight Doubling Time in weeks and Cumulative Percentage*

Weeks	Boys		Girls		Total	
	No.	Cumulative percentages	No.	Cumulative percentages	No.	Cumulative percentages
30-33	8	100.0	—	—	8	100.0
26-29	8	95.3	8	100.0	16	97.5
22-25	16	90.6	22	94.6	38	92.5
18-21	50	81.3	47	79.8	97	80.6
14-17	56	52.0	55	48.3	111	50.3
10-13	31	19.3	16	11.4	47	15.6
8 and 9	2	1.2	1	0.7	3	0.9
Total .. 171			149		320	
Range .. 9-31 weeks			8-28 weeks		8-31 weeks	
Mean weeks $17.98 \pm 0.39$			$18.7 \pm 0.34$		$18.3 \pm 0.26$ weeks	
Days .. 126			131		128	
S.D. .. 5.1 weeks			4.12 weeks		4.66 weeks	

per cent of both sexes requiring more than 26 weeks or 182 days for doubling the birthweight. Thus over 90 per cent of the infants attained their double birthweight before the end of the sixth month.

In commenting on the analysis of the contingency-table as summarised in Table III, I would like to discuss first the values of the average daily gain which were obtained by dividing the birthweight by the mean of DBT in days ; for example : 88 oz. being the mean weight of the first column divided by 97 in boys gives 0.9. These values are almost identical in all female groups, while in the boys there appears to be a clear division into two groups, that is, the groups under and above 7.5 lb. ; within these groups, however, the values remain remarkably constant. Two factors stand out from this : the greater growth impetus during the first 120 days and the independence of weight increments from the birthweight. The doubling time thus becomes associated with the birthweight ; it increases with birthweight. The coefficients of correlation were calculated and are for boys  $r = +0.64 \pm$

TABLE III

*Means of Doubling Time according to Birthweight groups, Average Daily Gain and Range of Doubling Time*

Birthweight—									
lb.	..	..	..	5—	6—	7—	8—	9—	10—11
kg.	..	..	..	2.270—	2.730—	3.180—	3.636—	4.090—	4.545—5

A. BOYS

Mean DBT—Weeks	..	13.8	15.2	17.7	22.3	24.8	22*
Days	..	97	106	124	156	174	—
Range, weeks	..	12—15	9—20	10—25	13—31	17—31	—
S.D. weeks	..	1.21	2.8	3.84	4.93	5.03	—
Average daily gain—oz.	..	0.9	0.98	0.96	0.87	0.87	—
g.	..	25.6	27.8	27.3	24.7	24.7	—

B. GIRLS

Mean DBT—Weeks	..	14.1	17.1	19.5	22.2	22.5†	—
Days	..	99	120	137	155	158	—
Range, weeks	..	8—16	10—23	13—28	15—28	20—24	—
S.D. weeks	..	2.0	3.2	3.65	3.98	—	—
Average daily gain—oz.	..	0.88	0.87	0.88	0.87	—	—
g.	..	25	24.7	25	24.7	—	—

\*Only 3 cases.

† Only 5 cases.



0.053, for girls  $r = +0.69 \pm 0.043$  ; the two values showing no significant difference when using the  $z$ -test.

Girls grow slightly more slowly than boys, their DBT means with one exception in the 8.5 lb. group being greater than those in boys, but the difference in the total means in the two sexes is statistically not significant :  $t=1.3$   $P>0.1$ .

For the 5.5 and 6.5 lb. groups of boys the difference of the means is only nine days, but it should be remembered that the 5.5 lb. group contains only six infants, a number actually too small for statistical evaluation. The following differences between the means in boys vary from 18—between the groups 6.5 and 7.5 lb.—to 32 days—between the 7.5 and 8.5 lb. group. In girls the differences between the means amount to 21, 17 and 18 days, thus showing a generally steadier pattern.

The standard deviations too, though increasing in both sexes with higher birthweights, indicate a much greater scatter of the individual DBT values around the mean in the heavier groups of boys so that the use of a regression equation representing one straight line has at least in boys little to recommend itself. The standard error of estimate for the regression of  $y$  on  $x$  is 3.93 weeks for boys and 2.98 weeks for girls, which means that in about 95 per cent of the infants the actual values of DBT will lie within a range of estimated value  $\pm$  twice these standard errors, i.e. deviate by 7.9 weeks for boys and 5.9 weeks for girls on either side of the expected value.

The regression equations are :

For boys :  $y \text{ weeks} = -4.59 + 2.97 x$  ; est.  $\sigma = 3.93$ .

For girls :  $y \text{ weeks} = -2.18 + 2.9 x$  ; est.  $\sigma = 2.98$ .

Whereby  $y$  denotes DBT in weeks and  $x$  the birthweight in lb.

Expressing the doubling time in days the two equations become :

(3a)  $y \text{ (days)} = -32.1 + 20.8 x$  for boys

(3b)  $y \text{ (days)} = -15.3 + 20.3 x$  for girls

The regression coefficients in these equations—20.8 and 20.3—indicating the number of days by which DBT increases for each pound-increase in the birthweight, being almost the same for both sexes, differ from the regression coefficients in equations (1) and (2), being 16 and 24 respectively. They lie practically midway between those values.

Table IV gives a comparison of observed means and means estimated from the four equations. For convenience, only means in days are tabulated.

TABLE IV  
*Comparing Observed Means of Doubling Time with means as estimated from  
equations (1), (2), (3a) and (3b)*

Birthweight, lb.      ..	5—	6—	7—	8—	9—	10—11
A. BOYS						
Observed means, days	97	106	124	156	174	—
Means established from equation (3a)      ..	82	103	124	145	166	—
(1)      ..	98	114	122*	—	—	—
(2)      ..	—	—	132†	156	180	—
B. GIRLS						
Observed means, days	99	120	137	155	(158) 2	—
Means established from equation (3b)      ..	97	117	137	157	(177)	—
(1)      ..	98	114	122*	—	—	—
(2)      ..	—	—	132†	156	(180)	—

\*For 7 lb. (formula (1)).    †For 7.5 lb. (formula (2)).    2Only 5 cases.

There is a fairly good agreement between the observed means and means estimated from equation (3b) for girls. In boys, on the other hand, the values obtained from equation (3a) tally only in two weight-groups namely 6.5 and 7.5 with the observed means, while the means as estimated from equations (1) and (2) exceed the observed means by about eight days in the groups : 6.5, 7.5 and 9.5 lb. The above given arguments against the use of one linear regression equation for predicting the DBT in individual cases thus finds confirmation. The equations (1) and (2) give a better fit for such an attempt if allowance is made for wide deviations in a singular case.

#### *Discussion*

E. Schlesinger (1925), in his monograph on child-growth, quoting earlier workers on the question of *Verdoppelungszeit* mentions Camerer's DBT of 140 days and considers H. Friedenthal (1912) as rather optimistic in stating 125 days as DBT for the "average" infant. It is interesting to notice that the mean of 17.9 weeks, i.e. 126 days, for boys as found in the present series is identical with this figure calculated

40 years ago. It appears that there has been but little change in the growth of infants then and now and comparisons of contemporary surveys on cumulative weight gains during the first months of life, as for example, Hammond's figures (1952), with Camerer's tables as quoted by A. Schlossmann and A. Eckstein (1930) gives good evidence of this. Cumulative weight increases of about 2,800 to 4,500 g. or 6 lb. 3 oz. to 9 lb. 14 oz. were attained between 16 to 28 weeks in both tables with but little differences in the individual four-weeks groups.

The healthy baby of today does gain—as it did then—an average of 1 oz. (28.4 g.) and more per day during the first three to four months of life irrespective of the first ten days' loss of weight, which, in accordance with findings of Wickes, can only mean that the actual average daily increment exceeds 1 oz. (28.4 g.) per day for a long period of the first year of life. The rate of growth as expressed in weight-gain is to a great extent independent of the birthweight ; the two exceptions being premature infants and babies over 10 lb. at birth exhibiting a quicker pace of growth, a fact which had also been stressed by Thomson (1954) in his report on the rate of growth in first-born and full-term infants. With the exception of a low degree significant negative correlation coefficient between birthweight and post-natal weight gain in boys at the age of two and four weeks, and in girls at the age of two, four and 12 weeks, there was no significant correlation in all the other groups.

The results of my investigation conform, too, with Thomson's finding in showing an increased variability of weight increments in the higher birthweight groups and a quicker gain in boys in all birthweight groups, from which in the present series there is only one exception in the 8.5 lb. (3.864 kg.) group where the values of DBT and therefore of average daily gain are identical in both sexes.

Hammond, in his first-year-growth survey of Leeds babies reported, in agreement with previous findings (Parfit, Simpson), the same sex difference ; he found that boys gained on average 1 lb. more than girls during the first year. If one allows one's imagination some playful interference one could muse over the question whether the heavier demands which this rate of growth in boys puts upon the growth-promoting and effecting forces of their organisms have something to contribute to their greater susceptibility to the hazards of the first year of life leading to the higher infant mortality in the male.

The generally accepted notion of a retardation of rate of growth setting in after the first four months is according to the results of the present series much more accentuated in boys than in girls whose steady pace in growth permits the use of a linear regression equation DBT—



birthweight for predicting the DBT, while the increasing variances within the higher birthweight groups of boys makes the application of such an equation of doubtful value. But it can be said that about two-thirds of infants will double the birthweight between 14 and 22 weeks, that is, within three to five months.

Yet in an individual child, if a due allowance for deviations is made, equations (1) and (2) as given in the introductory part of the paper can be used as a rough guide provided the child's development was not depressed by illness or mismanagement. Conversely and in retrospection this formulæ or the still simpler method of adding one-tenth of the value of birthweight in ounces to the birthweight oz. (in accordance with the average daily increment of about 0.9 oz. valid for the whole period under consideration) will serve a good purpose for estimating the DBT, and any positive deviation exceeding 20 days will point to a search for delaying factors.

My own experience during the last two years suggests that both these methods are reliable if applied for a rough guidance.

There is little doubt that the statement that a baby, meaning the "average" baby, doubles its birthweight at five or six months is misleading and should vanish from textbooks.

### *Summary*

A sample of 320 healthy infants—171 boys and 149 girls—was studied with the purpose of examining the relationship of birthweight and doubling time for birthweight (DBT).

This period ranges between nine and 31 weeks in boys with a mean of  $17.98 \pm 0.39$  weeks or 126 days, and between eight and 28 weeks in girls with a mean of  $18.7 \pm 0.34$  weeks or 131 days.

The means for each birthweight group in both sexes are given and sex differences discussed. Girls grow slightly more slowly but show a more regular pattern in their rate of growth.

The average daily weight-gain as ascertained from the doubling time is identical in all female birthweight groups, while in boys the groups under 7.5 lb. differ in the rate of weight-gain per day, this being 0.9 to 0.98 and 0.87 respectively.

Weight increments during the first six months are mainly independent of birthweight and the time needed for doubling the birthweight is therefore proportionate to the birthweight. The coefficients of correlation are :  $+0.64 \pm 0.053$  for boys,  $+0.69 \pm 0.043$  for girls.

The limited value of the regression equation is discussed and two simple equations for predicting the "doubling time" are presented.

Two-thirds of the infants surveyed in the sample completed the doubling time between 14 and 22 weeks, i.e. between three and five months.

### *Acknowledgments*

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## **Promotion of Cleanliness and Good Habits and the Elimination of Verminous Conditions.** (Circular 2,831 of the Ministry of Health, dated July, 1943)

### **Ascertainment**

The method and classification, as previously described, remain unchanged.

The number of children under five years of age known to the Department to be persistently verminous during the year under review was 31, and, as previously, they belonged to families where the mother was not unduly concerned about the presence of head lice.

### **Method of Cleansing**

In the comparatively small number of children requiring cleansing, members of the Department, including Home Helps, have assisted mothers to achieve the desired results.

### **Treatment at Minor Ailments Clinics**

The arrangements, as previously described, continue for the treatment of minor ailments at clinics which, for administrative purposes have passed to the Regional Hospital Board.

## Artificial Sunlight

The number of children referred to the clinic was 157, as against 182 for the previous year.

The number of children who completed treatment was as follows :

				<i>Good Results</i>		<i>Fair or Unchanged</i>		<i>Total</i>
				<i>Boys</i>	<i>Girls</i>	<i>Boys</i>	<i>Girls</i>	
<b>Infants :</b>								
Rickets	..	..		6	4	—	—	10
Poor general condition	..			10	14	4	2	30
Anorexia	..	..		5	7	—	1	13
Respiratory Catarrh	..			10	10	—	1	21
Skin Infections	..	..		4	1	—	—	5
Anæmia	..	..		—	1	—	—	1
Alopecia	..	..		2	—	—	—	2
				—	—	—	—	—
Totals	..	..		37	37	4	4	82
				—	—	—	—	—

## Other Clinics

There were 60 children under five years of age admitted to the Ear, Nose and Throat Clinic, 74 to the Eye Clinic, 294 to the Skin and Minor Ailments Clinic, 150 to the Orthopædic Clinic and one to the Rheumatism Clinic.

## Day Nurseries

As the decision of the Health Committee to discontinue the Training Course for Nursery Nurses will be fully implemented by the end of 1955, reduction in the administrative staff was possible in July of the year under review when the Deputy Supervisory Matron, who was almost whole-time Health Tutor to the Course, reached retiring age and was not replaced.

Braunstone Park Day Nursery closed in July, which was the latest date the Parks Committee would agree to the hutted building in the Park being used for this purpose.

Attendances at each Day Nursery are detailed below :

<i>Day Nursery</i>				<i>Attendances</i>	<i>Daily Average</i>
St. Martin's	..	..	..	12,946	53.05
Glen Street	..	..	..	11,591	47.50
Fosse Road	..	..	..	7,602	31.15
Fairway	..	..	..	6,643	27.22
New Walk	..	..	..	8,010	32.82
College Street	..	..	..	8,988	36.83
Bradgate Street	..	..	..	8,703	35.66



<i>Day Nursery</i>	<i>Attendances</i>	<i>Daily Average</i>
Belgrave House .. ..	6,545	26.82
Bedford Street .. ..	12,226	50.10
Sparkenhoe Street .. ..	12,089	49.54
*Braunstone Park .. ..	3,448	23.45
Frank Street .. ..	12,517	51.29
Number of children on the register ..	..	..569
Number of approved places ..	..	..525
(ex Braunstone Park)		
Average attendance in 1954 ..	..	..442

\*Closed July, 1954

From the above figures it will be seen that the attendances vary at different nurseries ; it is not always possible to persuade mothers to use outlying nurseries, while there is no difficulty in filling to capacity the nurseries more centrally situated.

Where the attendances showed a marked decrease it was due to the presence of Sonne Dysentery, during which time no new children were admitted to these nurseries which remained open.

The change of policy implemented in 1953 to make a charge of 5/- per day per child, or an assessment according to ability to pay, has caused a certain amount of delay in admission of children to the nurseries. It is desirable that any investigation as to financial circumstances should be carried out before admission but even this is not always possible because of the urgency of the application. An independent report by a Health Visitor where the need is stated to be other than financial is used in deciding whether a vacancy should be awarded.

The change of policy has reduced waiting lists at some of the nurseries though it is not always easy to find an immediate vacancy in a selected nursery for a child of a certain age group.

### **Nurseries and Child Minders Regulation Act, 1948**

Of the industrial nurseries registered in 1948, two continued to function and are supervised regularly from this Department.

In addition there is one play-group.

The question of the daily minders who do not come under the provisions of the above Act has been dealt with in detail in previous reports, and is the subject of special investigations at the time this report is being written.

## The Care of Illegitimate Children

### Circular 2866 of the Ministry of Health, dated October, 1943

In accordance with the provisions of the above Circular, a scheme has been in operation since 1st April, 1944, in collaboration with the Diocesan Moral Welfare Association.

Full details were given in the 1944 report.

Analysis of the work done during 1953 is as follows :

Number of cases notified by the City Health Department ..	224
Number of cases referred from other sources .. ..	39
	<hr/>
	263
	<hr/>

Practical ways in which mother and children have been helped :

By admission to voluntary Homes and Hostels*	..	28
By provision of clothing, cots, prams, etc. .. ..	..	16
By finding foster homes or nursery vacancies .. ..	..	12
By finding work .. .. .	..	2
By assisting in application for affiliation orders ..	..	7
By arranging private agreements and help from putative fathers .. .. .	..	27
By obtaining financial help from voluntary society ..	..	1
By advice and guidance on questions of adoption, affiliation, confinement arrangements, etc. .. ..	..	70

\*The fees paid to the Homes and Hostels were made up as follows :

Paid for by the City Health Department and mother's insurance .. .. .	13
Paid for by City Health Department, parent's and mother's insurance .. .. .	7
Paid for by City Health Department, putative father and mother's insurance .. .. .	1
Paid for by parents and mother's insurance .. ..	2
Paid for by mother's savings and insurance .. ..	3
Paid for by putative father and mother's insurance ..	2
	<hr/>
	28
	<hr/>

Position of children at the end of the year :

Living with unmarried mother in her own home ..	22
Living with unmarried mother in lodgings ..	5
Living with unmarried mother in Home or Hostel ..	2
Living with mother married to putative father ..	5
Living with parents who are not married ..	9
Living with foster parents .. ..	6
Living in Local Authority Nurseries (temporarily) ..	6
Adopted or placed for adoption .. ..	26
Mother removed before birth of child ..	3
Mother and child moved to other areas (referred to local workers) .. ..	4
Cases referred to other agencies .. ..	2
Children died .. ..	12
Children born in City from County address—referred to County Moral Welfare Worker .. ..	30
Health Visitors' reports "No help required at present" (Of these, 74 were cases of co-habitation and there were 57 other cases. Of the 74 cases, three have subsequently married) .. ..	131
	<hr/> 263 <hr/>

The Moral Welfare Association also dealt with 94 cases not included in the above figures ; 68 concerned children born before 1954 and 26 concerned mothers whose children are expected in 1955.

### Adoption of Children (Regulation) Act, 1939

The Leicester Diocesan Moral Welfare Association continues as the Registered Adoption Society for the City and County.

Details of the work of the Society during 1954 are as follow :

Number of applications from persons wishing to adopt a child	79
Number of children offered to the Society with a view to adoption .. ..	60
Number of children taken into Hostels under the direct control of the Society pending adoption .. ..	Nil
Number of children placed by the Society pending adoption in Foster Homes or Hostels not under the direct control of the Society .. ..	6
Number of children placed with a view to adoption ..	42*
Number of adoption orders made in respect of children placed by the Society .. ..	44
Number of children placed for adoption by the Society and awaiting adoption orders at the end of the year ..	17
Number of children in Hostels under the direct control of the Society at the end of the year .. ..	Nil
Number of Children at the end of the year in Foster Homes or in Hostels in which they had been placed by the Society but which are not under the Society's direct control ..	Nil

\*Two children withdrawn from adopters during probationary period.



## NATIONAL HEALTH SERVICE ACT, SECTION 23 MIDWIFERY

### Midwives

During the year 1954, 121 midwives notified their intention to practise. Of these, 29 were municipal midwives, seven were midwives in independent practice in registered nursing homes and two in independent domiciliary practice, the remaining 83 were practising in maternity hospitals and maternity homes.

### THE MUNICIPAL MIDWIFERY SERVICE SUMMARY OF WORK DONE BY MUNICIPAL MIDWIVES

Area	Cases Attended	Gas and Air Administered	Pethidine administered	VISITS		
				Post-natal	Ante-natal	Total
1	326	290	65	6,071	1,601	7,672
2	280	242	42	5,908	2,087	7,995
3	325	283	115	7,401	3,126	10,527
4	182	152	80	3,704	942	4,646
5	244	218	132	5,077	1,643	6,720
6	293	261	159	5,932	1,620	7,552
7	145	132	100	2,754	588	3,342
8	47	42	23	1,044	463	1,507
Totals	1,842	1,620	716	37,891	12,070	49,961

The establishment figure for municipal midwives was 28 and when this figure was finally reached for a short time during the year, it was possible to dispense with the services of part-time midwives. But then followed the expected retirement at 60 years of one midwife and the unexpected resignation at the end of the year of three midwives who had the option of retiring at 55 years. One midwife also left the service to take her training as a health visitor so that part-time midwives were still necessary at the end of the year to maintain the service.

The number of patients attended by Municipal Midwives in 1954 was 1,842, i.e. 173 less than in the previous year. This figure gives a

case load of 62 but owing to staff changes and sick leave the work was not evenly distributed. This was offset by the presence of pupil midwives who receive their district training with the 20 municipal midwives who are “approved” by the Central Midwives Board for this work.

**Analgesia**

It is gratifying to note that 1,620 of the 1,842 patients attended received gas and air analgesia (87%) and in addition pethidine (an analgesic drug) was administered to 716 patients.

We are pleased to place on record the co-operation of the staff of the City Ambulance Service in the matter of the delivery and the maintenance of the gas and air machines.

**National Health Service Act and Midwifery**

The liaison committee, comprising four General Practitioner/Obstetricians, four Municipal Midwives, together with the Medical Officer of Health and the Medical Supervisor of Midwives, continues to function to the mutual advantage of the medical and midwifery professions. The midwives will now serve in rotation on this committee so that the interest is spread throughout the whole team of midwives and the cordial relationship between them and the medical profession will extend to all areas in the city.

The following figures indicate the distribution of the work between midwives and doctors concerning the 1,804 deliveries attended by midwives in the area during the year.

Deliveries attended by a midwife :

(a)	(i)	When a doctor was not booked but was present at time of delivery	..	..	..	25
	(ii)	When a doctor was not booked and was not present at time of delivery	..	..	..	542
(b)	(i)	When a doctor was booked and was present at time of delivery	..	..	..	463
	(ii)	When a doctor was booked and was not present at time of delivery	..	..	..	774
Total						1,804

**Patients confined in Hospitals**

The scheme of notification to the Health Department of patients discharged from hospital, detailed last year, has been put into operation

during the year under review, when patients who were discharged before the 10th day were handed over to midwives to supervise. This has resulted in a great deal of unforeseeable visiting for midwives especially at week-ends and Bank Holidays when patients appear to discharge themselves prematurely or the pressure on hospital beds becomes acute.

It is inevitable that the midwife should take over the domiciliary supervision which she continues to do until the services of a health visitor are known to be available. This additional work is reflected in the comparatively large number of post-natal visits—37,891 (an increase of 373)—paid by midwives during the year.

### **Flying Squad**

The facilities for an obstetric operation or/and blood transfusion in domiciliary midwifery are readily available and when the emergency requires it, the midwife may summon the Flying Squad on her own initiative. This was done on seven occasions during the year and in addition there were 12 calls for the Flying Squad when a doctor, as well as a midwife, was already in attendance on the patient.



## NATIONAL HEALTH SERVICE ACT, SECTION 24

### Health Visiting and the School Health Service

The co-ordination of these two services, agreed in 1947, continues as each new appointment to the service is made, but it is inevitable, while there are members of the School Health Service who are not trained as Health Visitors, that combined duties are not undertaken by all members of the staff.

### Training School for Health Visitors

This School was opened in July, 1948, and by the end of 1954, 158 persons had successfully passed their examination.

Of these, 58 were bursary students and they have joined the staff for a minimum period of 18 months.

Many bursary students had previously left at the end of their contract, but recently several of them have continued on the staff for a longer period and some have intimated their intention to stay for an indefinite period. It is the training school which has enabled us to approach our establishment figure of Health Visitors for the first time but it is not intended to review this figure until the Working Party on Health Visitors publishes its Report.

## NATIONAL HEALTH SERVICE ACT, SECTION 26

### VACCINATION AND IMMUNISATION

#### Diphtheria Immunisation

Facilities for immunisation against diphtheria are available at all Child Welfare Centres at their weekly sessions and at Day Nurseries. There is also a central clinic at the Milk Depot, 13 Crescent Street, which is open each Saturday morning.

Birthday cards are still used for propaganda purposes.

The following are the figures of the number of children immunised up to the 31st December, 1954.

Under 1 year of age	..	..	..	386
1 year of age	..	..	..	2,459
2 years of age	..	..	..	2,911
3 years of age	..	..	..	3,104
4 years of age	..	..	..	3,242

Since 1951, there has been a gradual decrease in the number of children under one year who have been immunised. While propaganda continues it is the opinion of the field workers that the position will improve when the Department is able to put into operation its proposals to offer immunisation against Whooping Cough as well as against Diphtheria. It is hoped to do this in 1955.

#### Vaccination

Under the National Health Service Act, facilities for vaccination are provided at the clinic premises at 13 Crescent Street each Saturday morning (when another clinic is also held). The requests for vaccination are very few, namely 54 children and 32 adults vaccinated and two children and 15 adults revaccinated.

## NATIONAL HEALTH SERVICE ACT, SECTION 28

As recorded under Section 22, the Health Visitor is taking on additional duties in the Department. She carries out the work of Tuberculosis Care and After-Care in her own district. In the absence of routine information concerning discharge of patients from Hospital there is no routine method of follow-up and visits are paid only when a special request is made by the hospital staff.

The after-care of children returning home from Hospital is undertaken with more success because the Health Visitor is directly in touch by personal visits and by telephone with the staff of the Children's Wards of the various hospital units.

The method of follow-up of maternity patients is referred to under Section 23.



## NATIONAL HEALTH SERVICE ACT, SECTION 29

### DOMESTIC HELP

(Mrs. P. E. STEED, Organiser)

#### Home Help Service

##### Development of the Service, 1954

The year 1954, like the preceding year, was a testing time for the resources of the Home Help Service and the resourcefulness of its members. Once more, with proposals for expansion of the service approved for the financial year 1954 to 1955, these had to be abandoned at the last moment for reasons of financial economy. Once more the strain of meeting an increasing demand fell on the existing staff and once more, at the end of the year, the total number of homes helped by the service showed an increase, 3,971 as compared with 2,747 for the year 1953, without a corresponding increase in the number of staff employed or hours worked.

It is probable that two interdependent factors contributed to this impressive development in the scope of the service in terms of homes helped. One is that once the numerical strength of a Home Help Service has passed the number required to provide adequate and efficient service in the more straightforward emergencies requiring full-time routine help for a limited period, such as the attendance on a mother and her family during the lying-in period, the staff remaining after these needs have been met can be used to cover short, unexpected emergencies, the large group of invalids, handicapped or old people requiring long-term occasional help and families with a social handicap needing help which is far from routine, groups which tend to swell the case-load of a service. Then, closely related to this swell, comes the evolution of the service to meet the changing demand by the better deployment of staff, the introduction of more flexible systems of record-keeping and paper work generally and the more intelligent use of time and skills by the field-workers themselves.

This stepping up in efficiency and economy can be illustrated by comparing statistics of old people receiving help during the three years 1952, 1953 and 1954, when the numerical strength of the Service had perforce to remain fixed at between 230 and 250 Home Helps. The returns show that between 300 and 400 old people were covered each week in 1952, 500 to 600 in 1953 and 600 to 800 in 1954.

#### Training of Home Helps

The removal of the headquarters of the Service in January to its own premises at 138 Regent Road, with a lecture room and some facilities

for the practice of housecrafts opened the door to some experimental projects in training Home Helps both before and after enrolment in the Service. The house itself which is an example, on a larger scale, of many hundreds of late nineteenth century houses in the older quarters of the city, gives students during the Preparation Course opportunities of working under difficulties, thus adding to the excellent practice in the use of up-to-date equipment provided by the Central Institute a realistic approach to the not so convenient home. With a lecture room permanently available it has been possible to have additional lectures on "The Home and the Sanitary Inspector" with particular reference to pests and infestation by Mr. P. W. Beresford, and "Food Hygiene and the Home" by Miss M. E. Shute, Food Hygiene Officer. We have again been indebted to the Education Department for the continued help given by Miss Ash, the Principal of the Central Institute, Miss Wilson, Mrs. Kelly and Mrs. Watt and by Miss King, the headmistress of Rushey Mead Girls' School, who allowed us to use the school flat for one course when the Central Institute was not available. In our own department we would like to thank Miss Ratcliffe, Senior Superintendent of the Queen's District Nursing Service, Miss M. Ash, Senior Health Visitor, Mr. Beresford and Miss Shute for lectures and demonstrations during the courses, and Mr. Harris, the Health Education Assistant, for his unfailing help at all times.

The appointment in October, 1954, of Mrs. Judith Evans, a trained teacher in domestic subjects, as Deputy Home Help Organiser, gave another impetus to the breaking of new ground in training. With her help and advice plans were made, to be put into effect in 1955, for the extension of the Preparation Course to include a period of in-service training.

Experienced Home Helps have long felt the need for some form of refresher course to keep them up-to-date with new trends and methods. In April, the Greensleeves Club was formed with an executive committee of Home Helps responsible for organising regular meetings at headquarters for study, group discussions and other recreational activities. We would like to record our appreciation of the talks given by various officers of the Health Department and other social services at the Wednesday night Study Circles, of the work of Miss Mason in taking the Keep Fit Class, and of the co-operation of the Leicester City Transport Swimming Club in providing facilities for swimming practice.

### **Other Activities**

Through the auspices of the Greensleeves Club two bus-loads of

children in our care who had never seen the sea were taken to Chapel St. Leonards one fine Sunday in June and at Christmas, parties of Home Help carol singers visited all our old people with gifts. Two Christmas parties were given for children of needy families. We record our thanks to the members of the Soroptimist Club of Leicester who provided presents for the hundred and thirty children who attended these parties, also to many friends of the Service for gifts of clothing, bedding, invalid chairs and furniture for people in our care.

### The Work of the Service during 1954

The following statistics give an indication of the relative demand for the service in the different categories of emergency in the home covered by Section 29 of the National Health Service Act.

### Homes Helped

<i>Emergency</i>	<i>No. of Homes covered</i>
(i) Maternity .. .. .	958
(ii) Child Welfare .. .. .	403
(iii) Tuberculosis .. .. .	117
(iv) Others (including the aged and long and short term sickness) .. .. .	2,493
Total .. .. .	3,971

The duration of help received varied from one day in a few emergencies in groups (ii) and (iv) to twelve months in groups (iii) and (iv).

A clearer picture of the scope of the service is given by the following statistics of homes and persons helped during a sample week when there were 225 Home Helps on duty :

### Week ending 10th December, 1954

(a) Homes helped :

<i>Emergency</i>	<i>No. of Homes covered</i>
(i) Maternity .. .. .	23
(ii) Child Welfare .. .. .	46
(iii) Tuberculosis .. .. .	49
(iv) Others .. .. .	685
Total .. .. .	803



(b) Persons helped :

<i>Group</i>	<i>No. of Persons</i>
(i) Mothers .. ..	23
(ii) Children .. ..	245
(iii) Tuberculous People .. ..	53
(iv) Old People .. ..	770
(v) Sick People .. ..	165
(vi) Other members of the family ..	179
Total of Persons helped ..	1,435

Groups (i) and (ii) have again included a number of socially handicapped families to whom the label “problem” has been attached at the time of their referral to the care of the service. In the previous year we were able to report optimistically on the preventive care given to such families by a team of selected Home Helps who showed a special aptitude for this work. With another year of experience, both personal and pooled in discussion, workers in this special field have acquired a greater confidence without losing that humility which is a prerequisite of any constructive approach to these problems. Some indeed have shown a wisdom born of experience which leads them intuitively through effects to causes. The following is an illustration :

We were called in to help the X family when Mrs. X, in an advanced stage of pregnancy, was sent to hospital for a blood transfusion. We were told that this family was “hopeless”, the problem being Mr. X, who was said to ill-treat the four children in the family, to have perverted sexual habits involving the children and to keep his wife, who was of poor mentality, short of money. Since their marriage fifteen years before the couple had been living in the house of an elderly man who said he was the foster-father of Mrs. X and who had supplied most of the information against Mr. X. The living conditions were among the most sordid that we have yet met, but the Home Helps, while removing the dirt and neglect of years, began to piece together the truth of an unwholesome situation in which the dominant character was not Mr. X but the elderly man. Gradually, through the personal influence and intervention of a Home Help, the tangled relationships were cleared and the husband’s position in the home was established. Not long after the birth of the baby, the married couple and the children were moved to a house of their own where they are now living a reasonably normal life as a family, visited very occasionally by the Home Help and themselves calling on her for advice if they are in difficulty.

Reference has already been made to the increasing number of old people entrusted to our care. Fresh applications came in daily from general practitioners, home nurses, the Welfare Department, the National Assistance Board, voluntary organisations and church workers. Within this large family of old people there were roughly three different types of help required. First, there were the occasional discoveries of old people living alone in a state of mental and physical degeneration in dirty and sometimes infested dwellings, until a row of unclaimed milk bottles on the doorstep attracted attention or the state of their homes became a nuisance to neighbours. For these pitiful victims of their own neglect the helper must be a person with a special aptitude, or indeed a vocation, for this type of social work. Through the care of our Home Helps some twenty old people in this condition were recovered during the year, some, it is true, to die within a short period, but in conditions of comfort and reasonable cleanliness.

Secondly, there was the need for care of the right type and at the right time for some 492 old people who were bedridden or could not move from their beds without assistance. To these our team of Home Helps working early and late shifts gave valuable assistance to supplement the care provided by day during normal working hours. This regular service has been especially helpful in preventing people suffering from degenerative rheumatoid complaints from becoming completely bedfast.

Thirdly, there was the larger group of old people needing occasional help to prevent their deteriorating to the conditions of the first and second groups. This need, according to population statistics, is likely to concern us more and more as the years go by. In the year under consideration some progress was made in meeting this need by new and more intelligent methods of approach, by grouping the old people and by the Home Helps themselves arranging their work in pairs or teams so that shorter and more frequent visits could be paid, with attention to details which would contribute to the cheerfulness and well-being of the old people concerned while maintaining a reasonable standard of cleanliness in their homes. Home Helps who have been long in the service are particularly to be commended for their willingness to experiment with these new methods and for the contribution they have made to our discussions on this subject.

In conclusion it should be said that the constant planning and re-planning which must go on if a new service is to develop freely depends on the enthusiastic co-operation of the staff responsible for the organising and clerical work of the department and even of the staff of more

remote departments such as the City Treasurer's Internal Audit. It is fitting that a report of this year's work should close with a tribute to all those back-room workers who made such a steady contribution to the progress of the Home Help Service in 1954.

## GENERAL

### Registered Nursing Homes

Concerning the ascertainment of any Registered Nursing Homes this is a matter which is constantly kept in mind by Health Visitors, and by midwives. During the year one house was visited where it was reported that patients were cared for in an unregistered home but by a general trained nurse. The transfer of the patients was promptly undertaken. It is the policy of the Department to refer to the Welfare Department premises where old people are cared for but which are not considered for registration as a Nursing Home.

### Nurses' Bureau

One application was granted for the registration of a Nurses' Bureau at 110 Howard Road.

### Staff

Dr. A. C. Watson joined the medical staff on the 1st May, 1954.

E. B. BERENICE HUMPHREYS.

*June, 1955*



**TABLE 9**

**LIST OF**

**REGISTERED NURSING HOMES**

**(INCLUDING MATERNITY HOMES)**

ADDRESS					NO. OF BEDS
9 Mere Road	..	..	..	..	1
Stoneygat Nursing Home,	Stoneygat Road				10
39 Scraft Lane	..	..	..	..	8
"Broadview,"	Goodwood Road				5
Central Nursing Home,	6 University Road				15
Sundial Nursing Home,	Aylestone Road				20
St. Francis Private Hospital,	362 London Road				31
Springfield Road Rest Home,	35 Springfield Road				8
The Lawn Nursing Home,	London Road				22
Dane Hills Convent	..	..	..	..	56

# Maternity and Child Welfare Dental Service Report for 1954

by

C. A. REYNOLDS, L.D.S., R.C.S.  
Chief Dental Officer

During 1954 the staffing of the dental service of the Local Authority providing treatment for school children and for mothers and pre-school children was very much the same as for the previous year, less than half the establishment ; so the time allocated to maternity and child welfare work has continued to be limited to one session each week at three dental clinics, London Road, Overton Road and Cort Crescent. While below the suggested proportion of one-eleventh of the time of each dental officer, this has in fact proved on average, more than sufficient for the demand and no patients were turned away.

The demand for treatment during the year was markedly higher at the Cort Crescent clinic. This is due, in the first place, to its location in that the area it provides for includes two large housing estates and, secondly, to the fact that ante-natal clinics are held in the same building, which makes routine dental inspections possible without being unduly costly in time. From other ante-natal and welfare clinics, patients continue to be referred by the medical officers in charge.

The tables following this report are comprehensive and leave little to comment upon. Compared with the previous year it will be seen that while fewer mothers received treatment there was in fact more treatment carried out. Appointments not kept by mothers totalled 125 and represent a serious loss of the limited time available—more than one in every six appointments given.

Treatment of pre-school children is almost wholly limited to extractions for relief of pain. Local anæsthetics are usually tolerated well for one or two teeth but where children are unduly apprehensive or where multiple extractions are necessary, general anæsthesia is used.

In concluding, I would express my thanks to Mr. Howson (London Road), Mr. Fillingham (Overton Road), and Mr. Williams (Cort Crescent) who have carried out most of the treatment for this part of the dental service. I would also express my thanks to Mr. Woodford

for his work in the laboratory, where for the greater part of the year he has been alone yet has managed to keep apace with the work and still maintain a high standard.

**DENTAL TECHNICIAN SERVICE**  
**TOTALS FOR MATERNITY AND CHILD WELFARE SERVICE**  
**From 1st January to 31st December, 1954**

Appliances as supplied ..	Full Upper and Full Lower	Full Upper and Part Lower or Full Lower and Part Upper	Part Upper and Part Lower	Full Upper or Full Lower	Part Upper or Part Lower	Repairs etc.
No. of Patients	13	5	5	9	15	8

Columns 1, 2 and 3 should be multiplied by two to arrive at the number of appliances supplied.  
 Total Number of Appliances, etc. : 78.  
 This service is carried out at the Education Department's Laboratory at Overton Road.

**MATERNITY AND CHILD WELFARE, 1954**

Details of Treatment, etc.	Pre-School Children	Adults	Total
Sessions devoted to Treatment	102		102 (116)
Patients treated ..	129	174	303 (366)
Daily Attendances ..	149	576	725 (763)
Extractions—Permanent Teeth	—	699	699 (609)
Temporary Teeth	288	—	288 (302)
General Anæsthetics ..	69	—	69 (73)
Fillings—Permanent Teeth	—	99	99 (104)
Temporary Teeth	7	—	7 (6)
Scalings .. ..	—	53	53 (43)
*X-Rays .. ..	—	3	3 (—)
Other Operations ..	—	211	211 (218)
†Dentures .. ..	—	66	66 (56)
Patients to whom dentures have been supplied ..	—	43	43 (34)
Denture repairs ..	—	6	6 (11)

(1953 figures in brackets)

\*Facilities are available at Richmond House Dental Clinic.  
 †Includes 40 Full Dentures and 26 Partial Dentures.  
 During the year 129 appointments were not kept,



MATERNITY AND CHILD WELFARE SERVICE, 1954

(a) Numbers provided with Dental Care :

	Examined	Needing Treatment	Treated	Made Dentally Fit
Expectant and Nursing Mothers..	182	176	174	115
Children under 5 ..	142	129	129	128

(b) Forms of Dental Treatment provided :

	Scalings and Gum Treatment	Fillings	Silver Nitrate Treatment	Crowns or Inlays	Extractions	General Anaesthetics	Dentures Provided			Radio-graphs
							Full Upper or Lower	Partial Upper or Lower		
Expectant and Nursing Mothers ..	53	99	—	—	699	—	40	26		3
Children under Five ..	—	7	—	—	288	69	—	—		—

# Report of the City Analyst for the year 1954

by

F. C. BULLOCK, B.Sc., F.R.I.C., P.A.Inst.W.E.  
(Public Analyst and Official Agricultural Analyst)

*To the Chairman and Members of the Health Committee :*

I beg to present my 26th report in this series; it relates to the work carried out in the City Analyst's Department during 1954.

The individual samples are classified and set forth in the tables at the end of the report as previously ; they cover the period 1st January to 31st December, 1954. The preliminary write-up in these reports tends to cover the period up to the actual time of writing, which is usually about May of the ensuing year ; it is convenient to continue this practice in the present report.

While, therefore, a principal event of the year was the migration to new premises at the end of March, 1954, this was in fact mentioned in the report for 1953.

It is now possible to report a complete twelve months of occupation, and to confirm that the change has proved very well worth while. Considering the move in its proper perspective, I hope it is regarded as but a temporary expedient ; and that in the not too distant future, the need for an up-to-date laboratory designed for its specific purpose will be accepted. In spite of the inevitable upheaval caused by the removal, no hiatus occurred in our work. To cover emergencies, provision had been made for temporary facilities at several other laboratories in case of unexpected difficulties ; I therefore now wish to place on record very sincere thanks to the following gentlemen : Dr. Mair, at the Emergency Public Health Laboratory, Groby Road ; Mr. S. J. Roberts, Beaumont Leys Sewage Farm Laboratory, and Professor L. Hunter, at University College—all of whom generously offered either to do work or to provide bench space for us if necessary. Only very short-term use was, in fact, made of these facilities, and I owe much to my own

staff that we took what amounted to a very considerable disturbance in our stride.

I think the records in the City Treasurer's office will indicate also that, financially speaking, the transfer was made without producing more than the slightest temporary bulge in our expenditure. The strictly limited sum approved to cover the cost of removal (including refitting of new premises) was rigidly adhered to ; and I think we can show that for these expensive times, that sum was made to go a very long way.

## Staff

Since writing the staff notes for the 1953 report in May last year, there have been further changes in the personnel of the department.

On the occasion of her marriage at the end of August, 1954, Miss Woolley left after nine months' service.

Mrs. Williamson, having replaced Miss Taylor in April, 1954, also left the office staff towards the end of September, to acquire another change of surname. She was replaced by Miss W. Smith, who commenced her duties on 1st November.

Mr. Mason joined the Department during November, 1954.

Miss Brewin was married in July, 1954, and became Mrs. Porter.

The authorised establishment was increased by one during the year to provide for a whole-time cleaner and laboratory attendant. Mrs. Keller's appointment to this post has proved to be one of our more successful experiments, as the well-kept condition of the premises at all times indicates.

This may be an appropriate opportunity to refer to the general question of staffing the Public Analyst's Department. Whereas a generation ago applicants, both qualified and unqualified, were plentiful, the position has now radically changed ; our average number of replies to advertisements is of the order of two or three, and the question of selecting a "short list" has not arisen for many years. Even boys about to leave school and having a general inclination for science no longer apply for openings in the Department ; and it follows that as regards staff, we live a hand-to-mouth existence. Normally we have insufficient qualified people to deal promptly and efficiently with the work as it comes in.

This is not exploiting the report to air a local grievance—had that been the case it would have been omitted—it is, however, a general problem throughout the country, and a serious cause for concern among Public Analysts ; a solution to the problem is needed urgently.



In the case of younger men the tempting system of grants available today from Education Authorities tends to prolong the years during which men are content to consider themselves purely and simply students. In the case of older people with qualifications, the more attractive terms offered by industry, put Local Government Departments at a severe disadvantage.

Since the records in the following tables indicate that our volume and variety of work have been fully maintained, it is with very great conviction that I once again pass on to the staff who have been with me throughout the year, my sincere thanks for their full co-operation and loyalty. Mr. Pike has proved an efficient Deputy at all times, and the younger members of the staff, both technical and clerical, have invariably tackled with enthusiasm such duties as they have been given.

## LEGISLATION

### **The Public Health (Preservatives, etc., in Food) Regulations, 1925 to 1948. Circular MF 2/54. Thiourea, 25th January, 1954**

This Circular drew attention to the possible use by certain orange growers of thiourea, and of fungicides containing thiourea, as a rot and mould suppressant. The Ministry of Food advised that thiourea falls within the definition of "Preservative" given in the Preservatives in Food Regulations, and that the sale of any article of food containing thiourea would be a contravention of these Regulations.

### **Cream Soups, Circular MF 3/54, 8th February, 1954**

As butter for manufacturing purposes is now becoming more freely available, the Minister of Food has directed that the Code of Practice for Canned Soups be amended as follows: "Cream Soups. A product described as cream soup should contain not less than  $2\frac{1}{2}$  per cent by weight of butter fat; but no exception will be taken to a product sold under this description—(a) which contains less than  $2\frac{1}{2}$  per cent, but not less than  $1\frac{1}{2}$  per cent by weight of butter fat if the total fat content is not less than  $3\frac{1}{2}$  per cent".

### **The Food Standards (Margarine) Order, 1954, No. 613**

This Order prescribes a standard for margarine as respects vitamin A and vitamin D content, and a method for the determination of vitamin A. (The prescribed method requires the use of a Quartz Spectrophotometer.)

### **The Mineral Oil in Food (Amendment) Order, 1953, No. 1044**

Mineral oil in dried fruit limited to 0.5 per cent, and in citrus fruits to not more than 0.1 per cent. In foodstuffs containing mineral oil introduced as a lubricant, the addition is limited to not more than 0.2 per cent by weight of mineral oil.

### **Limits for Lead in Food. (Report of Food Standards Committee)**

Revised limits for traces of lead in many foodstuffs were recommended in this publication approved by the Ministry of Food.

### **The Food Standards (Soft Drinks) (Amendment) Order, 1954, No. 1089, 22nd August, 1954**

This Order amended the Food Standards (Soft Drinks) Order, 1953, by extending the exemption of fruit juice from the provisions of the principal order to include undiluted fruit juice, with or without added sugar, and any such juice in concentrated (or frozen) form.

### **Food and Drugs Amendment Act, 1954. Circular MF 21/54**

This circular, dated 26th November, 1954, draws attention to the Food and Drugs Amendment Act, 1954. This Act will not come into operation immediately but on a date to be appointed by order of the Minister of Food. It will constitute an important landmark in the Food Legislation of this country.

## **MILKS**

Out of a total of 2,193 samples examined for chemical composition, 183, or 8.3 per cent, proved to be below standard. The two or three instances where added water was proved beyond all reasonable doubt to be present were the subject of legal proceedings and fines were obtained. These and the other defective samples are set out, perhaps somewhat formidably, in Table C. It will be seen that the majority of the samples with adverse reports were slightly deficient in fat (i.e. contained less than 3.0 per cent) or of milk solids other than fat (i.e. contained less than 8.5 per cent) or were low in both respects. The fat deficiencies were no doubt often due to unequal milking periods ; and some of the deficiencies of solids-not-fat may have been partly due to small amounts of extraneous water, less than the amounts capable of proof by the freezing point test. Many of the deficiencies, however, were almost certainly the results of cows giving milk below average quality. This is an aftermath of the war, when cows were bred for quantity rather than quality ; the breeds concerned have naturally been considered since then to be a good business proposition.



Producers of such milk should be grateful to the many research workers, who have perfected and proved the value of the freezing point test, which exonerates the producer if in fact no extraneous water has been added, and saves him the trouble of bringing a train of witnesses to court to prove his innocence. From the point of view of the consuming public, however, future historians may regard as an extremely subtle form of food adulteration the ingenuity of producing cattle which virtually supply the milk already watered, sparing the producer from possible temptation to add his quatum. The fair solution of this problem from the point of view of the public, would be to charge in proportion to quality ; but this policy, often considered and rejected, is fraught with administrative difficulties. Meantime these suspicious and borderline samples provide an enormous amount of work, which leads to very little satisfaction on the part either of the analyst or the consumer.

None of the samples in Table C exhibits anything of particular interest or novelty, apart perhaps, from the case where a producer who had a leaky cooler brought the plumber to court to prove that he had repaired the leak after the sample had been taken. A better witness for the prosecution could hardly have been found.

### MISCELLANEOUS FOOD SAMPLES

The food samples other than milk condemned are set out in Table D(a).

A total of 568 food samples were examined during 1954 under the Food and Drugs Act, 532 being submitted by Food Sampling Officers, and 36 by members of the public. Altogether 36 of these samples were found to be not genuine or in some way unsatisfactory, being some 6.3 per cent of the total samples examined. Relevant details of the deficiencies of these condemned samples are as follows :

#### **Bread (Sliced), No. S.224**

This sample, submitted by a private person, consisted of five slices of machine-cut bread. In the centre of the middle slice a piece of ferrous metal (possibly a portion of a nail) was embedded. From the appearance of the sample, the metal was introduced during the slicing operation, and was not in the bread during the baking process. Some of the surrounding bread was discoloured and contained particles of iron, probably abraded from the large piece of metal during the cutting operation.

Court proceedings were instituted, and a fine of £5 was obtained



against the vendor who pleaded guilty to selling bread containing an inedible body contrary to the Food and Drugs Act.

### **Bread (Sliced), No. S.228**

One portion of this sample (which had been toasted on one side), contained a hard brown inclusion about half an inch long by 0.3 inches wide. This material was readily softened in water, and under the microscope gave no structures other than wheaten starch grains ; it was probably a fragment of malt extract which had not become incorporated with the dough. Though not unwholesome, it had an objectionable appearance and justified the complaint made.

In other slices of the bread there were dark inclusions (about four in all) which, when examined microscopically, showed globules of mineral oil and fibres of textiles ; many of the fibres had the characteristics of jute.

It is probable that some of these foreign bodies consisted of fragments of grease from the machinery, and fibres from cloths which had been used in cleaning the machinery.

One portion of extraneous matter was removed and soaked in water, and revealed a fragment of newsprint on which several letters could readily be deciphered.

The whole sample was poor in quality, and in our opinion was unfit for sale for human consumption. The producer was strongly cautioned ; but owing to the fact that he was about to emigrate, no further action was taken.

### **Bread and Butter (Sample Nos. 1645, 1646, 1647)**

Three samples of "Bread and Butter" were purchased from local cafés, and were found to consist of bread spread with margarine. In various parts of the country it has been established in the Magistrate's Court that if the menu states bread and butter, then bread and butter it must be, and margarine can in no case be allowed to masquerade as butter.

As these were the first samples of bread and butter to be taken in Leicester since the end of rationing, it was decided that no legal proceedings be instituted, but the vendors were suitably cautioned. The Leicester Area Committee of the Caterers' Association of Great Britain were informed ; they circulated a memorandum to their members to the effect that to supply margarine in place of butter was a contravention of the Food and Drugs Act, and a risk of prosecution would be taken in future cases of this kind.

### **Silver Beet (Canned), No. 1468**

This is a green leaf vegetable of American origin. The sample was submitted for opinion regarding its suitability for use in school meals. The contents of the can appeared to be in good condition, and the tin content of the Silver Beet was less than the recognised maximum of 250 p.p.m. ; but the lacquer of the tin was in a very pitted and corroded state—pieces of lacquer having become detached from the can revealing the tin coating in a very etched condition. The opinion was expressed that the examination of a single can was insufficient upon which to generalise in recommending the substance for human consumption.

### **Fruit Loaf, No. 2287**

This sample consisted of a slice of buttered Fruit Loaf, on the surface of which was a chain cycle anchor link. It was submitted privately through the Sanitary Inspectorate.

Examination indicated that there was butter (or margarine) under the link ; and no evidence was available to enable us to decide whether the link was a foreign body baked in the loaf, or whether it had gained access afterwards.

### **Grapefruit in Syrup, No. S.204**

This sample, submitted privately, was abnormally brown and exhibited the crystallisation of “Naringin” (the substance to which the characteristic flavour of grapefruit is due). The taste was unpalatable and bitter, and the sample smelled stale (due probably to overlong storage in unsuitable conditions). The remainder of the stock was condemned.

### **Ice Cream, No. 1137**

This sample contained only 4.9 per cent fat, the statutory minimum being 5.0 per cent. The sample was a poorly constituted product, and further sampling was recommended.

The 77 ice cream samples analysed are summarised in Table N. Fairly intensive sampling of this commodity in recent years has well established the fact that the large producers are now putting on the market an excellent product of high nutritional value—a potential danger to the waistline in fact.

### **Jam (Samples Nos. 1306 and 1307)**

Both of these samples were of average quality, but the labels were devoid of a reference to the word “Jam” or its equivalent. This omission

was calculated to constitute a contravention of the Labelling of Food Order, and the producers were accordingly informed.

### **Marzipan, No. 1301**

This sample consisted of approximately 30 per cent almonds and 70 per cent sugar. It was received as a moulded block wrapped in cellophane, and as such was regarded as a pre-packed article subject to the Labelling of Food Order. Since this sample was received devoid of any labelling whatsoever, a contravention of the above-mentioned Order was deemed to have been committed and the vendor was accordingly advised.

There would appear to be many varieties of marzipan on the market at the present time, the almond content varying from 20 per cent to 60 per cent, the remaining ingredients being sugar or a mixture of sugar and corn syrup. Since the almond content is the most expensive ingredient, there is a case for a standard of this article. In our opinion the term "Marzipan" could be reserved for a high-grade article containing not less than 50 per cent almonds, whilst the term "almond paste" could be used for lower-grade samples containing between 20 per cent and 50 per cent almonds.

### **Mussels**

In contrast to 1953 when 21 samples of shellfish were examined and all passed as clean, in this year seven samples out of a total of 23 samples were condemned as failing to reach the necessary standard of cleanliness as required by the recommendation of the Worshipful Company of Fishmongers. In all these cases immediate action was taken by the Medical Officer of Health, the supplies being confiscated or stopped. The Health Authority at the town of origin was notified in each case.

### **Orange, No. S.230**

This sample was a portion of peeled fresh orange. It was submitted privately because some of the tissue was perforated and two live grubs were present. These presumably were intermediate forms in the life history of some fly. It may be assumed that oranges, like apples, onions and carrots in this country, have their own specific forms of insect pests ; and the presence of one or two healthy grubs in a sample of oranges cannot be regarded as an adequate cause of condemnation any more than one or two small grubs in a sample of raspberries.

Whilst these parasites are not often met with in oranges, it might be said that one seldom comes across a sample of raspberries and similar



fruit without them ; and although perhaps a little annoying if not found until the fruit is half consumed, a cursory glance in the first place is usually sufficient to put one on one's guard. There is a commonly held but quite unfounded belief that oranges are too acid to support living parasites.

### **Peanuts (prepacked), No. S.196**

This is a product which has a ready sale in picture houses and other places of entertainment where the contents of the packets are consumed in semi-darkness and in such a state of divided attention that the consumer hardly notices what he or she might be eating. It is, therefore, of the utmost importance that such products should be of the highest quality as regards cleanliness and freedom from grubs. This sample as received contained many peanuts in a very filthy condition.

The packer's premises were subsequently visited and the packer himself severely cautioned. Further follow-up samples proved to be of better quality.

### **Potted Meat**

The standard accepted by many Public Analysts for potted meat is that the product should contain not more than 70 per cent moisture, and that no added starchy matter be present. Apart from this opinion, the Code of Practice issued by the Ministry of Food in July, 1951, for meat pastes, etc., states that "Only if a paste or spread contains no filler may it be sold as potted meat, e.g. a product sold as potted beef must consist solely of beef with no added binder". This Code of Practice makes it clear that two very dissimilar products are permissible, i.e. "Potted Meats" which are essentially meat products devoid of starch but made into a paste, and "Meat Pastes" which contain cereal as a filler or binder. From the point of view of meat content it is obvious that a "potted meat" is a better and often more expensive product than a "meat paste".

In spite of these definitions we have received several samples submitted as "Potted Meat Pastes". All these samples contained a small percentage of starch (about 5 per cent) representing say 10 per cent filler. The description "Potted Meat Paste" is in our opinion a contradiction in terms ; and it would appear that the manufacturers wished to have the best of both worlds, to sell meat paste but to cash in on the enhanced reputation of "potted meat". This view was strengthened by the fact that the word "paste" appeared in smaller type than the phrase "Potted Meat" in the display cards.

### **Potted Meat Sample, No. S.218**

This sample, submitted by a member of the public, contained an undesirable foreign body in the form of a piece of verdigris. The manager of the firm concerned was informed, and it was concluded that the undesirable substance might have originated from the bearings of a mixing machine. Every possible step to prevent a recurrence of such an error was promised by the producers.

### **Pork Pie, No. S.223**

This sample was submitted by a private person who purchased it from a delivery van. When cut, the pie was found to be heavily infected with a mould growth. It was obviously old stock, and should never have been sold for human consumption.

### **Christmas Pudding, No. 2583**

This sample bore no statement of ingredients as required by the Labelling of Food Order, 1950. Christmas puddings were formerly exempted from this requirement, but this exemption was annulled by S.I. 1952, No. 549. The packer was unaware of this Order, and agreed to conform to the necessary regulations in future.

### **Puff Pastry**

This was received in a printed cellophane packing, which rendered the sample subject to the Labelling of Food Order, as applied to a pre-packed article. Since no declaration of ingredients was given on the wrapper, a contravention of the above-mentioned order was therefore deemed to have been committed.

This sample introduced a certain amount of controversy regarding the classification of a puff pastry. If cooked this would be deemed to be flour confectionery, and would then be exempt from the labelling provisions. However, in the uncooked state it could be regarded in the same light as "bun and cake flour" in which case a declaration of ingredients is necessary. It is peculiar in that the addition of water to convert the dry flour into a dough should introduce some doubt in this matter, but in the time of rationing it appears the Ministry of Food classified uncooked Puff Pastry as Flour Confectionery. From the Labelling of Food Order, Puff Pastry is not included in the definition of Flour Confectionery, and consequently in view of the fact that the Ministry of Food were unable to give a ruling on the matter, and the Food Manufacturers' Federation supported its classification that the product should be defined as Flour Confectionery, the matter was dropped.

### **Raisins, No. 1631**

This sample contained approximately 20 per cent of currants. The vendor stated that this was due to an error on the part of an assistant who filled the raisin container with currants.

### **Iodised Salt (Informal Sample No. 1239, Formal Sample No. 1608)**

These samples were deficient of 29 and 33 per cent respectively of the declared minimum iodine content. The manufacturers were cautioned by the Medical Officer of Health.

### **Tapioca, No. 1921**

As in previous years, this was an example of sago being sold as tapioca. More often the reverse holds good, and tapioca being whiter is preferred by many under either name. Since it seems that sago and tapioca are legally assumed to be synonymous, no serious view could be taken of such an offence ; but as on previous occasions, the vendor was informed of the true character of these substances.

### **Watercress, No. 977**

Faecal coliform organisms were isolated from this sample, and it was declared to be unsuitable for human consumption unless it was previously cleaned by a satisfactory sterilising process.

The Medical Officers of Health of the areas of origin were informed, and their enquiries substantiated the result of our analysis, and promised that all steps possible to prevent a recurrence of such contamination would be taken.

## **MISCELLANEOUS DRUG SAMPLES**

### **Celery Pills, No. 2577**

A deficiency of 100 per cent of the declared content of phenolphthalein occurred in this sample. The manufacturers were informed, and expressed astonishment at the omission of this ingredient. They too, however, tested a portion of the sample and confirmed our result.

It is interesting that a similar case occurred in 1932 ; and the only explanation for the present deficiency was that the sample might have been from the same batch of pills adversely reported upon in 1932. Twenty-two years is rather a slow turnover for celery pills, but their storage qualities were, at least, demonstrated.



### **Cod Liver Oil Capsules, No. 2429**

These capsules were a well-prepared product, but there was no quantitative declaration of the Cod Liver Oil content per capsule on the label, although the vitamin content of the oil was declared. We considered the information was insufficient to enable the doctor to give accurate dosage if these capsules were administered for medical purposes, and the sample was reported against as not being labelled in accordance with the requirements of the Pharmacy and Medicines Act.

The manufacturers then advanced the argument that they were always up against the difficulty as to whether Cod Liver Oil was a food or a medicine. They considered primarily that the Labelling of Food Regulations should apply, and stated that all their labels had been approved by the Ministry.

The definition of "food" according to the Labelling of Food Order, 1953, means "any article used as food or drink for human consumption, and includes any substance which is intended for use in the composition or preparation of food, any flavouring, sweetening matter or condiment, and any colouring matter intended for use in food ; and any article shall not be deemed not to be a food by reason only that it is also capable of being used as a medicine".

This definition would support the argument that Cod Liver Oil may be regarded as a food, and may therefore not be subject to the labelling provisions as laid down in the Pharmacy and Medicines Act, 1941. This was, in our opinion, only acceptable when the Cod Liver Oil is supplied in liquid form (as in the case of a welfare food) but not when sold purely on its vitamin content.

The fact that the vitamin content was a feature of the labelling of this sample, and the fact that the sample was presented in the form of capsules, in our opinion, put this product in the category of a medicine. The producers conceded this point, and agreed to amend their labels at the earliest opportunity.

### **Compound Medicine (X's Liquid of Life), No. 1218**

A concoction which can relieve such maladies as : Indigestion, Dyspepsia, Biliousness, Constipation, Jaundice, Enlargement of Liver, Stomach, Kidney and Liver troubles, chronic diseases such as Rheumatism, Fevers, Ulcers, Bronchitis, and also which works the menses and removes any obstruction after childbirth, is indeed worthy of the name "Liquid of Life". Unfortunately, such claims are grossly exaggerated and indeed illegal, since reference to childbirth approaches recom-

mendation of the substance as an abortifacient. It was a mitigating factor that this reference to childbirth had been omitted from later labels ; so that although the label still included exaggerated claims, no legal objection could be taken to it. It is unfortunate that in this supposedly enlightened age such medical “balderdash”—there is no other description for it—is permissible and more unfortunate in that there are people about who are so gullible as to believe such rubbish, in many cases just because it is seen in a printed form.

### **Glycerin of Borax, No. 2206**

A deficiency of 8.3 per cent borax was found in this sample. The vendor was cautioned by the Medical Officer of Health. The remaining stock was withdrawn from sale.

### **Indigestion Mixtures**

The right to prescribe is a jealously guarded privilege of the pharmacist which is not by any means challenged by the Public Analyst. There does, however, appear to be a misconception among some pharmacists as to what prescribing really means. This view is illustrated by the fact that upon three occasions this year, the sampling officer, upon asking for Indigestion Mixture, was presented with a bottle of mixture bearing only the name of the medicine and directions of dosage on the label. This obviously contravenes the requirements of the Pharmacy and Medicines Act, 1941, which states that any prepacked medicine for treatment of human ailments must bear upon the label a true and accurate quantitative statement of the ingredients.

It is impossible adequately to prescribe a medicine for any person unless an enquiry is made regarding symptoms, and yet some pharmacists upon being asked for an indigestion mixture, gaily disappear behind the dispensing screen and produce some mysterious potion without even asking if it is to be taken by the purchaser (who might be shopping for a small son with tummy trouble from chewing his father's tobacco, or for some maiden-aunt who has tendencies to become a hypochondriac). To prescribe accurately, these facts must be known to the dispenser, who cannot be believed to be endowed with supernatural powers of perception.

There is no doubt that the pharmacist's right to prescribe will best be safeguarded by the exercise of these rights in a conscientious manner. A medicine properly prescribed for a particular person, of course, need not carry a declaration of its quantitative formula.



## Penicillin Tablets

The quality and potency of pharmaceutical preparations after long periods of storage has, for some time past, been the subject of research in a number of Public Analyst's laboratories. In this connection we examined some samples of penicillin tablets and found that some very dubious samples were being offered to the public. Deficiencies of 19 per cent, 63.9 per cent, and 96.5 per cent of penicillin content were found in samples of Penicillin Tablets of a reputed 100,000 units potency. The last sample was obviously almost valueless.

Investigation proved that the two latter samples were old stock, and that insufficient care had been taken regarding storage and sale in proper rotation. Laxness of this kind is inexcusable in the case of such a thermolabile substance. The stocks were withdrawn from sale.

In instances like this, it was considered that undue publicity was undesirable as it might regrettably undermine the confidence of the Public in the Pharmacist ; consequently the matter was taken up in the first place with the appropriate Pharmaceutical body. The Secretary circularised all pharmacists in Leicester that such products were liable to be sampled under the Food and Drugs Act, and drew their attention to the necessity and obligation to supply a full-strength article at all times.

The examination of penicillin tablets was greatly facilitated by the use of the Ultra-Violet Spectrophotometer which was acquired for laboratory use towards the end of 1954. This instrument has since proved useful for the speedy examination of other substances for which lengthy and tedious bacteriological and chemical methods would have been needed.

## Sulphur Tablets

The Pharmacy and Medicines Act, 1941, requires all substances "recommended as a medicine" to be labelled with the proper name of the substance, and unless it is an official preparation of the B.P. or B.P.C., its quantitative composition must be declared. The operative word in this statement is "recommend", and the vexed question is "What does really constitute recommendation?" That a substance is produced in a form for medication of human ailments, tablets or capsules, for instance, does not in itself legally constitute a recommendation as a medicine. Nevertheless, it is highly desirable that however innocuous a medicine may be, it should not be issued in an unlabelled condition.

Many samples such as Sulphur Tablets, Soda Mint Tablets, and



other preparations specifically prepared for medicinal purposes, are being presented for sale in unlabelled bags, or in bags bearing irrelevant advertisements extolling the virtues of "X's Aspirin Tablets" or "Y's Glucose Sweets". Such distribution may be expected from the grocer, but ethically is not desirable from the profession of pharmacy.

### **Vitamin C Tablets, No. 1386**

This sample consisted of well-made tablets of correct potency, but an undesirable foreign body in the form of a grub was found in the sample. This was obviously due to insufficient examination of the container where the grub was undoubtedly previously in residence. The vendor was suitably cautioned.

## **MISCELLANEOUS SAMPLES**

To our occasional embarrassment we are credited at times with an unreasonable degree of omniscience and are presented with problems which we know we cannot handle satisfactorily. People with a persecution complex are, sadly enough, more prevalent than is commonly realised ; and they submit a range of materials from notepaper to cakes they have made themselves, and occasionally unopened packets of prepacked foods which they themselves have purchased and which cannot possibly have been tampered with. (Psychology rather than chemistry is the tool we try to apply in such cases, and the samples are not usually recorded.)

From such and other sources we received the varied list of samples roughly classified in Tables H, I, and J.

From Saxon urns to Turkish Delight and modern advertising is a far cry ; and if variety adds spice to a profession, the piquancy of a Public Analyst's calling seems well established.

Only a few items from these tables will be referred to :

### **Baby Food**

This was submitted because it was alleged to have caused sickness. It was a dried milk and nothing chemically injurious was found present. Dried milk tends to pick up moisture on storage, and paradoxically becomes thereby less readily soluble in water. A high insoluble figure is often associated with sickness in babies as they cannot digest the sediment. This was the probable explanation in this instance.

## Cooked Apple

This had caused sickness at a school where the children had eaten it for lunch. A pale green colour was suspicious, and we found present 90 p.p.m. copper. The apple had been stewed in an old tinned copper vessel, and it was quite possible that the portion eaten by the children had been more heavily contaminated with copper.

A **gammon slice** which had green discoloured patches on the surface was also examined for copper contamination. This seemed to be limited to the outer surface only, and it was suggested that the material was harmless but should be used with a minimum of delay since the most minute trace of copper induces rapid development of rancidity in pork fat.

The Education Department submitted three samples, including an **aluminium baking vessel**, which had become discoloured in use. The discoloration was probably associated with traces of copper which formed part of the alloy, and sulphur derived from its previous use when onions had been cooked therein.

A sample of disintegrated **concrete** received from the City Surveyor for examination, had broken down prematurely. Examination suggested that the presence of excessive sulphate was the explanation.

The item **Turkish Delight** in Table H, submitted by the Town Clerk, may give rise to mild wonderment. The sample was not submitted as a personal problem, but had been forwarded by a manufacturer in Turkey who wished to market the product in this country, and the Town Clerk wished to be assured that its composition was in accordance with the food laws of this country.

## ADVERTISEMENTS

An important provision of the current food laws provides that “a person who publishes . . . an advertisement . . . which falsely describes any food or drug . . . shall be guilty of an offence”.

In recent years we have challenged the claims made in advertisements for a number of nationally publicised foods, and have usually met with ready co-operation from the firms concerned. Sometimes advertisements have disappeared overnight, more often a period of grace has been necessary. In one instance the firm itself disappeared !

The problem of protecting the public from over-smart advertising is not easy, it is frequently a question of opinion rather than fact. The

advertiser's object, in the first place, is to inform and instruct. Up to a point he is entitled to cajole, and occasionally trade "puffs" are winked at. When he begins to intimidate he is getting on dangerous ground ; but when he stoops to wilfully misleading the public he has, in the modern idiom, "had it".

In the case of most firms of repute the standard of modern food advertising is today beyond criticism. There is still a residual hard core, however, who exploit pseudo-science to confuse a readily gullible public. Compared with the policy followed in advertising petrol, detergents and certain cosmetics, however, advertising in the food world is on the whole thoroughly restrained ; and indeed some of the masterpieces of vagueness which play on nothing more specific than "quality" have probably not much publicity value. This is to the good, however, as the particular brand is kept in the public eye and should sell on its actual merits rather than those imagined for it.

The only advertisement we took exception to during the year was one by a foreign government for the cheese of that particular country. The advertisement appeared in a popular weekly, and the point we objected to was the claim that this particular cheese was "full of rich creamy milk", whereas we believed from past experience and confirmed by a current analysis, that it was actually made from partly-skimmed milk. The advertisement was withdrawn immediately ; and in a friendly interchange of correspondence and a personal visit by a representative of the government concerned, we were invited to suggest wording which would be completely inoffensive, and our suggestion was adopted.

## FERTILISERS AND FEEDING STUFFS

Fifty samples were submitted by the Inspector during 1954, for examination under the Fertilisers and Feeding Stuffs Act, 1926, and another 11 samples were submitted for analysis by private individuals. (See Table G.)

In only one case was the declaration of composition required by the Act irregular in form ; this was a sample of Sulphate of Ammonia, for which there was no declaration of free acidity ; a free acidity of 0.027 per cent. calculated as sulphuric acid was found.

Out of a total of 29 fertiliser samples, five were incorrect in composition. Dried Blood (No. 54/FF/23) contained only 13.22 per cent nitrogen, whereas 15.76 per cent was claimed—a minimum of 15.26 per cent nitrogen is allowed by the prescribed limits of variation (plus or minus 0.5 per cent).



Two samples of Muriate of Potash (Nos. 54/FF/28 and 54/FF/35) each contained an excess over the declared 50 per cent potash content claimed. Sample No. 54/FF/28 contained 8.5 per cent excess, and Sample No. 54/FF/35 contained 12.9 per cent more than declared.

Nitrate of Soda (No. 54/FF/16) contained 1.4 per cent more nitrogen than the 15 per cent declared, this excess being 1.1 per cent more than allowed by the prescribed limits of variation. Nitrate of Soda (No. 54/FF/33) contained 0.9 per cent excess nitrogen above the declared 15.0 per cent, this excess being 0.6 per cent greater than the permissible 15.3 per cent. nitrogen. In none of these variations from the declared content was the purchaser prejudiced ; such variations in excess of the prescribed limits of variation do however constitute a contravention of the Fertilisers and Feeding Stuffs Regulations.

A greater proportion of the feeding stuffs examined showed discrepancies, twelve of the twenty-one samples being found wanting in some respect as detailed below :

**Calf Nuts** (No. 54/FF/45) contained 0.8 per cent less oil and 4.6 per cent less protein than the amounts declared. Both of these deficiencies being in excess of the 10 per cent variation allowed, they were deemed to be to the prejudice of the purchaser.

**Baby Calf Nuts** (No. 54/FF/48) contained 3 per cent oil, being 2 per cent less than the declared 5 per cent. This was to the prejudice of the purchaser ; but the fibre content—being less than the minimum allowed by the prescribed limits of variation, was not regarded as being other than a technical infringement.

**Dairy Nuts** (No. 54/FF/46) was deficient of 1.9 per cent albuminoids, the declared amount being 17 per cent, the prescribed limits allowing a lower content of 15.3 per cent albuminoids.

**Ewe and Lamb Nuts** (No. 54/FF/47). This sample was deficient in oil, 2.72 per cent, being found against a declared content of 4 per cent.

**High Protein Intensive Mash** (No. 54/FF/44) contained more oil than declared (4.8 per cent against 3.0 per cent declared) and a lower albuminoid content was stated (18.4 per cent against 22.5 per cent declared).

### **Layer's Meal**

**Sample No. 54/FF/41** contained 2.44 per cent oil against 4.0 per cent declared, and was deficient of the stated fibre content.

**Sample No. 54/FF/42.** This sample was deficient of 1.5 per cent fibre (5.0 per cent being found against 6.5 per cent declared). This was not considered to be to the prejudice of the purchaser.

**Sample No. 54/FF/49.** Deficient of 1.86 per cent oil, 3.14 per cent being found against a declared 4 per cent.

**Pig Meal (No. 54/FF/43)**

Contained 1.2 per cent oil and 3.3 per cent fibre in excess of that declared (3.0 and 6.0 per cent respectively) whilst the albuminoid content was deficient of 3.8 per cent (18.5 per cent declared).

It was notable that the majority of the above Feeding Stuffs originated from one supplier. The explanation of so many divergencies from the declared contents was that difficulty had been experienced in obtaining normal supplies or raw materials due to dock strikes. Whilst a certain amount of sympathy in these matters can be felt for a manufacturer's problems, it is his duty to provide a correct statutory statement of analysis for his products, no matter what the circumstances; and a change of formula should be assumed to require fresh analyses of raw materials, so that the Statutory Statement can be amended as necessary.

**WATER (see Tables W(a)—W(d))**

It is axiomatic that nothing is spared to ensure the safety of the water as supplied to the 400,000 consumers in this area; daily sampling and analysis is carried out to ascertain that this object is being continuously achieved. We maintain the closest contact with the Water Engineer and his staff in order that adjustments in treatment that appear desirable may be carried out with a minimum of delay.

Various aspects of this branch of our work have been dealt with in previous reports, and it will suffice here simply to record that once again it has been possible to certify all samples representing water as supplied to consumers as "safe and satisfactory for drinking purposes".

The main concern in recent years has been the steady but relentless over-taking of the reliable available yield by the increasing demand. The question of quantity is, of course, entirely the Engineer's province; but in as far as we have been involved in this problem to the extent of several hundreds of analyses, I would like to record that 1954 provided a landmark in the history of the Leicester Water Undertaking in that twelve years' exploratory work finally came to a successful conclusion when the River Dove Scheme received the official blessing of the Ministry of Housing and Local Government.

## SWIMMING BATH WATERS

Reference to Table F indicates that during the year all the swimming pools in Leicester, both those run by the Civic authority and the open-air pools run by private enterprise, were consistently of good bacteriological quality and safe for bathing.

As has been mentioned in previous reports, the adoption of break-point chlorination has paid dividends in the excellent colour and clarity exhibited at all times in the swimming pools where this process is applied.

Provided the  $pH$  of the water is kept between 7.6 and 8 (that is slightly alkaline) a residual of free chlorine up to 1 part per million can be maintained without causing discomfort to, or evoking complaints from bathers.

Owing to the heavy and rapidly changing bathing load in our present very limited bathing accommodation, it is almost impossible for the engineering staffs to maintain the chlorine residual at a precise figure ; and we consider it "a good fault" to have a reasonable margin of residual chlorine as a safety precaution. Too high a figure is, of course, unnecessary and uneconomic ; and might lead to corrosion troubles in the treatment plant, besides being undesirable to bathers.

It will be seen from the Table that on several occasions we complained that the water was of low  $pH$  (i.e. was acid in character). Continuous treatment with chlorine gives the water this tendency to become acid, and it is very desirable both from the point of view of the comfort of bathers, and the welfare of the plant, that adequate attention be given to maintaining the water in an alkaline condition.

From experience gained by the examination of samples, and from fairly regular personal inspection, I am pleased to say once again that from the public health point of view the local swimming water is kept consistently at a very high standard of excellence.

## ATMOSPHERIC POLLUTION

1954 may be remembered for its excessive rainfall, an average of 2.62 inches per month being recorded. Yet reference to Table P will show that 1946 was an even wetter year, averaging 2.73 inches per month.

Close study of Table P indicates that in spite of the wetness of 1954, the Town Hall area was enshrouded with less solid deposit than in any



year since 1949, the total deposit being 24.78 tons per square mile per month, as against a twelve-yearly average of 25.09 tons per square mile per month.

Evington, on the other hand, received a slightly greater deposit than the monthly average recorded in that district during the past four years, being 7.10 tons per square mile, against an average of 7.04 tons per square mile. Could this be due to a greater expansion of suburbia? If so the encouragement of the use of smokeless fuels might help to preserve the cleanliness of Evington air as compared with that of the City Centre. The soot deposit in both the City and at Evington has increased over 1953 records, the actual absolute increases being approximately the same in both areas (i.e. 0.62 and 0.66 tons/sq./mile/month). The percentage increase calculated on 1953 figures is, of course, much higher in Evington than at the Town Hall, being some 56 per cent for the former as against 13.8 per cent for the latter area.

Table O gives the monthly average figures for sulphur dioxide in the atmosphere, and again shows the same trend as pointed out in previous years that the acid pollution of the air diminishes progressively from the City Centre to Evington and from Winter to Summer; but whereas last year (1953) the Sulphur Dioxide at Evington was approximately one-tenth of that at the Town Hall, during 1954, it has increased to approximately one-sixth of that amount.

Uncomplimentary things have been said about statistics, and one must be cautious in deducing undue significance from inadequate data. The number of variables that affect records of Atmospheric Pollution is so great that only long-term averages are really worth studying.

The results we have been accumulating during the last 30 years are, therefore, mainly intended as grist to the mill of the nation-wide research conducted by the Fuel Research Committee of the D.S.I.R.

No one denies the seriousness of the evil of Atmospheric Pollution, particularly in relation to Public Health. The destructive black-out that occurred in London in December, 1952, and a more recent one that made artificial lighting necessary in London at midday in June, 1955, are timely reminders that we are far from being entitled to be "smug about our smog".

## PUBLIC RELATIONS

Frequent requests are received for parties to visit the laboratory. With regret we often have to decline this courtesy. A laboratory is not

usually a show-piece of popular interest, and we have not sufficient margin of staff to detach from current work to entertain visitors. We also receive many requests to give talks, and in this matter, we try to oblige as often as requested. During the year, talks were given by various members of the staff to the following bodies : Royal Infirmary Ladies' League, Leicester Rotary Club, Chichester Rotary Club, Belgrave Liberal Club and Institute, St. John Ambulance Brigade, Toc H, Domestic Science Training College, Social Science Faculty of University College, and Glenfield Ladies' Adult School.

F. C. BULLOCK

*June*, 1955

**TABLE A**

**Summary of Samples Analysed during 1954**

**Food and Drugs Act, 1938 :**

Samples submitted by Sanitary Inspectors..	..	1,077
Samples submitted by the Public	..	41
Informal Milk Samples taken primarily for bacterio- logical examination ..	..	1,827
Shellfish (Bacteriological Samples)	..	23

**Fertilisers and Feeding Stuffs :**

Samples submitted under the Fertilisers and Feeding Stuffs Act, 1926, by Sanitary Inspectors	..	50
Samples submitted privately	..	11

**Rag Flock Act, 1911 :**

Samples submitted by Sanitary Inspectors	..	3
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Milk (Special Designation) Regulations, 1949	..	1,670
Daily Dairy Control Samples for pasteurisation efficiency ..	..	1,260
Atmospheric Pollution Samples	..	395
Water Samples for Water Committee	..	3,614

**Miscellaneous Samples from other sources :**

Health Department	..	150
Other Corporation Departments	..	11
Miscellaneous	..	440

Total	..	10,572
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**TABLE B**  
**FOOD AND DRUGS ANALYSED DURING 1953**  
(Sampled by Sanitary Inspectors under the Food and Drugs Act)

**Foods Analysed :**

Sample	No.	Sample	No.
Milk .. ..	2,189	Food (High Protein) ..	1
Almonds (Ground) ..	5	Fruit (Dried) ..	8
Apple Vinegar ..	1	Gelatine ..	1
Arrowroot ..	4	Glucose ..	1
Baby Foods ..	9	Golden Raising Powder ..	2
Bacon ..	7	Grape Fruit (Canned) ..	1
Baking Powder ..	5	Gravy Powder ..	1
Beans in Tomato Sauce ..	1	Gravy Salt ..	5
Beers ..	12	Herbs (Dried) ..	11
Beet (Silver, Canned) ..	1	Honey ..	5
Beverages ..	4	Ice Cream ..	77
Blancmange ..	4	Jam ..	12
Bread and Butter ..	3	Jellies (Table and Crystal) ..	9
Butter ..	6	Lard (Purified) ..	1
Butter Concentrate ..	2	Lemon Flavoured Pie Filling ..	1
Butter Puff Biscuits ..	2	Lemon Juice (Pure) ..	1
Butter Sweets ..	6	Loaf (Fruit) ..	1
Cake Mixtures ..	7	Macaroni ..	1
Cheese ..	11	Margarine ..	5
Cheese (Cream) ..	2	Marzipan ..	7
Chicken Cake (Minced) ..	1	Mayonnaise ..	1
Chocolate Bars ..	1	Meat Paste ..	4
Chocolate (Drinking) ..	1	Milk Drink ..	1
Cider ..	1	Milk Evaporated ..	2
Coconut Desiccated ..	3	Mincemeat ..	4
Coffee ..	5	Mineral Waters ..	3
Coffee and Chicory Essence ..	5	Mussels ..	23
Condensed Milk ..	5	Mustard ..	4
Cordials and Squashes ..	8	Orange Drink ..	1
Cornflour ..	3	Oranges ..	4
Crab (Dressed) ..	1	Peas (Canned) ..	10
Curry Powder ..	5	Pea-flour ..	1
Custard Powder ..	7	Peanuts ..	1
Egg (Dried) ..	1	Peel (Cut) ..	2
Fats (Cooking) ..	5	Pepper ..	6
Fish Cakes ..	4	Poultry (Minced) ..	2
Fish (Canned) ..	2	Potted Meat ..	5
Fish Dressing ..	2	Pudding (Christmas) ..	5
Fish Paste ..	2	Puff Pastry ..	1
Flavouring, Colourings ..	7	Rennet (Essence) ..	1
Flour Plain ..	1	Rice ..	8
Flour S.R. ..	4	Rice (Creamed, Canned) ..	1

TABLE B—continued

Sample	No.	Sample	No.
Sago .. ..	1	Table Cream .. ..	1
Salad Cream .. ..	5	Tapioca .. ..	4
Salt .. ..	6	Tea .. ..	6
Salt (Iodised) .. ..	5	Tomatoes .. ..	4
Sausage .. ..	32	Vinegar .. ..	3
Sausage Additive .. ..	1	Wafers (Ice-Cream) .. ..	1
Sausage Improver .. ..	1	Watercress .. ..	5
Sausage Rolls .. ..	1	Welsh Rarebit .. ..	2
Sauces .. ..	3	Whisky .. ..	7
Semolina .. ..	4	Wines .. ..	4
Soup (Canned, Dried) .. ..	8		
Spices .. ..	6		
Suet .. ..	5		
Sugar .. ..	10	Total .. ..	2,721

**Drugs Analysed :**

Ammoniated Tincture of Quinine .. ..	6	Iodine (Tincture of) .. ..	7
A.P.C. Tablets .. ..	1	Laxative .. ..	1
Aspirin Tablets .. ..	6	Methyl Pentynol Capsules .. ..	3
Benzedrine Inhalers .. ..	3	Parrish's Food .. ..	4
Black Currant Syrup .. ..	1	Penicillin Tablets .. ..	8
Boric Ointment .. ..	3	Potassium Bromide Tablets .. ..	3
Calcium Lactate Tablets .. ..	6	Raspberry Vinegar .. ..	1
Camphorated Oil .. ..	6	Rose Hip Syrup .. ..	3
Celery Pills .. ..	1	Saccharin Tablets .. ..	2
Chemical Food .. ..	1	Sal. Volatile .. ..	6
Coconut Oil .. ..	1	Seidlitz Powders .. ..	6
Cod Liver Oil Capsules .. ..	1	Sodium Bicarbonate .. ..	7
Compound Medicine .. ..	1	Sulphanilamide Tablets .. ..	4
Cream of Tartar .. ..	6	Sulphathiazole Tablets .. ..	4
Epsom Salts .. ..	6	Sulphur Tablets .. ..	5
Eucalyptus Oil .. ..	6	Sulphur Ointment .. ..	3
Formamint Tablets .. ..	3	Sulphur and Lime Juice Lozenges .. ..	1
Friars Balsam .. ..	3	Surgical Spirit .. ..	3
Glauber's Salt .. ..	6	Tonic .. ..	1
Gee's Linctus .. ..	1	Vitamin Capsules .. ..	1
Glycerin .. ..	3	Vitamin C Tablets .. ..	7
Glycerin and Borax .. ..	6	White Precipitate Ointment .. ..	6
Glycerin, Lemon and Honey .. ..	3	Zinc Ointment .. ..	5
Glycerin and Thymol .. ..	6	Zinc and Castor Oil Ointment .. ..	6
Golden Eye Ointment .. ..	5		
Gripe Water .. ..	3		
Halibut Oil .. ..	1		
Halibut Oil Capsules .. ..	3		
Hydrogen Peroxide .. ..	6		
Indigestion Mixture .. ..	5		
		Drugs .. ..	206
		Foods .. ..	2,721
		Total Food and Drugs .. ..	2,927

TABLE C. Milk Samples "Not Genuine"

Sample No.	Article	Formal, Informal or Private	Nature of Offence	Action taken
35	Milk ..	Informal	6.6% deficient of fat ..	Reported to Chief Sanitary Inspector Followed-up by five formal samples, two of which (Nos. 1367 and 1371) proved to be "not genuine"
106	Milk ..	Informal	10.0% deficient of fat ..	
136	Milk ..	Informal	6.66% deficient of fat and 1.42% deficient of solids-not-fat	Reported to Chief Sanitary Inspector Followed-up by two formal samples (Nos. 1374 and 1375), the latter proved to be "not genuine"
140	Milk ..	Informal	20% deficient of fat ..	
144	Milk ..	Informal	6.66% deficient of fat ..	Four formal follow-up samples taken (Nos. 1376-1379) were genuine
1367	Milk ..	Formal	2.3% deficient of solids-not-fat ..	
1371	Milk ..	Formal	3.0% deficient of solids-not-fat and 5.66% deficient of fat ..	{ Follow-ups of informal sample No. 106
1375	Milk ..	Formal	10% deficient of fat ..	
1384	Milk (heated for drinking) ..	Formal	66% deficient of fat and 33.3% deficient of solids-not-fat. The freezing point determination indicated the presence of approximately 33.9% added water	Follow-up of informal sample No. 140
1385	Milk (heated for drinking) ..	Formal	15.3% deficient of fat ..	
1386	Milk (heated for drinking) ..	Formal	69.3% deficient of fat and 39.5% deficient of solids-not-fat. The freezing point determination indicated the presence of 38.1% added water	Fined £10
1389	Milk (heated for drinking) ..	Formal	7.33% deficient of fat and 14.2% deficient of solids-not-fat. The freezing point indicated the presence of 12.8% added water	
				Vendor cautioned by M.O.H.
				Fined £5 Leak in outer jacket of urn
				Fined £5 Leak in outer jacket of urn



TABLE C—continued

Sample No.	Article	Formal, Informal or Private	Nature of Offence	Action taken
1391	Milk (heated for drinking)	Formal	3.33% deficient of fat	Cautioned by M.O.H. Cautioned by M.O.H. Formal follow-up samples taken. No. 1397 proved to be "not genuine" Follow-up of informal sample No. 269
1392	Milk (heated for drinking)	Formal	16.7% deficient of fat	
269	Milk	Informal	11.33% deficient of fat	
1397	Milk	Formal	15% deficient of fat and 3.3% deficient of solids-not-fat. No added water present	
327	Tuberculin Tested Milk	Informal	3.3% deficient of solids-not-fat	Reported to Chief Sanitary Inspector Followed-up by formal samples Nos. 1414-1425
337	Tuberculin Tested Milk	Informal	3.53% deficient of solids-not-fat and 10% deficient of fat	
S192	Pasteurised Milk	Private	16.6% deficient of fat	Formal sample taken which proved to be genuine
374	Tuberculin Tested Milk	Informal	10% deficient of fat and 0.35% deficient of solids-not-fat	Formal follow-up samples taken proved to be genuine, but two were reported "barely-up-to-the-mark" as regards fat and solids-not-fat contents
379	Tuberculin Tested Milk	Informal	13.7% deficient of fat	Formal follow-up samples taken, Nos. 1426-1436
381	Tuberculin Tested Milk	Informal	6.66% deficient of fat and 2.47% deficient of solids-not-fat	Formal follow-up samples taken, Nos. 1437-1444
1414	Milk	Formal	23.3% deficient of fat and 5.06% deficient of solids-not-fat. No added water present	Follow-up of informal sample No. 337
1415	Milk	Formal	6.66% deficient of fat and 6.47% deficient of solids-not-fat	Follow-ups of informal sample No. 337
1416	Milk	Formal	No added water present 3.33% deficient of fat and 7.88% deficient of solids-not-fat. No added	

TABLE C—*continud*

Sample No.	Article		Formal, Informal or Private	Nature of Offence	Action taken
1419	Milk	.. ..	Formal	1.66% deficient of solids-not-fat. No added water present	Follow-ups of informal sample No. 337
1420	Milk	.. ..	Formal	2.12% deficient of solids-not-fat. No added water present	
1421	Milk	.. ..	Formal	11.66% deficient of fat and 1.18% deficient of solids-not-fat. No added water present	
1422	Milk	.. ..	Formal	0.59% deficient of solids-not-fat. No added water present	Follow-ups of informal sample No. 379
1423	Milk	.. ..	Formal	3.33% deficient of fat and 3.30% deficient of solids-not-fat. No added water present	
1424	Milk	.. ..	Formal	3.33% deficient of fat and 2.70% deficient of solids-not-fat. No added water present	
1425	Milk	.. ..	Formal	20.0% deficient of fat. No added water present	Follow-up of informal sample No. 381
1430	Milk	.. ..	Formal	20% deficient of fat and 1.53% deficient of solids-not-fat	
1431	Milk	.. ..	Formal	6.66% deficient of fat .. ..	
1433	Milk	.. ..	Formal	6.66% deficient of fat .. ..	
1434	Milk	.. ..	Formal	3.33% deficient of fat .. ..	
1435	Milk	.. ..	Formal	13.3% deficient of fat .. ..	
1437	Milk	.. ..	Formal	1.66% deficient of fat .. ..	
1438	Milk	.. ..	Formal	13.3% deficient of fat .. ..	
1439	Milk	.. ..	Formal	2.35% deficient of solids-not-fat .. ..	
1440	Milk	.. ..	Formal	2.35% deficient of solids-not-fat .. ..	
1443	Milk	.. ..	Formal	1.18% deficient of solids-not-fat .. ..	
1444	Milk	.. ..	Formal	1.18% deficient of solids-not-fat .. ..	

TABLE C—continued

Sample No.	Article	Formal, Informal or Private	Nature of Offence	Action taken
437	Accredited Milk ..	Informal	23.3% deficient of fat ..	Formal follow-up samples taken, Nos. 1449-1452
1449	Milk ..	Formal	6.66% deficient of fat ..	} Follow-ups of informal sample No. 437. Formal "Appeal to Cow" samples taken, 13 of which were low in fat content
1450	Milk ..	Formal	20% deficient of fat ..	
1451	Milk ..	Formal	26.70% deficient of fat ..	
439	Tuberculin Tested Milk ..	Informal	13.3% deficient of fat ..	
1456	Milk ..	Formal	13.3% deficient of fat ..	Formal follow-up samples taken, Nos. 1453-1457
488	Tuberculin Tested Milk ..	Informal	6.66% deficient of fat ..	Follow-up of informal sample No. 439
491	Tuberculin Tested Milk ..	Informal	3.30% deficient of fat ..	Formal follow-up samples taken, Nos. 1463 and 1464, which proved to be genuine
492	Tuberculin Tested Milk ..	Informal	10% deficient of fat and 2.58% deficient of solids-not-fat	} Formal follow-up samples taken, Nos. 1463 and 1464, which proved to be genuine
500	Tuberculin Tested Milk ..	Informal	6.66% deficient of fat ..	
535	Tuberculin Tested Milk ..	Informal	6.66% deficient of fat ..	14 Informal samples taken as follow-ups, Nos. 588-601; 6 samples were reported as "barely-up-to-the-mark" regarding either fat or solids-not-fat content, but no added water was indicated by the freezing point determination
790	Tuberculin Tested Milk ..	Informal	4.24% deficient of solids-not-fat ..	} 12 Formal samples taken as follow-ups, Nos. 1467-1478; 3 samples were "barely-up-to-the-mark" as regards solids-not-fat content. No added water was indicated by the freezing point determination
791	Tuberculin Tested Milk ..	Informal	3.53% deficient-of-solids-not-fat ..	

Reported to Chief Sanitary Inspector



TABLE C—continued

Sample No.	Article	Formal, Informal or Private	Nature of Offence	Action taken
832	Accredited Milk ..	Informal	2.58% deficient of solids-not-fat	Reported to Chief Sanitary Inspector
833	Tuberculin Tested Milk ..	Informal	1.77% deficient of solids-not-fat	Reported to Chief Sanitary Inspector
821	Tuberculin Tested Milk ..	Informal	13.3% deficient of fat	Followed-up by formal samples Nos. 1532-1543, five of which were found to be "not genuine"
825	Tuberculin Tested Milk ..	Informal	6.66% deficient of fat	Followed-up by formal samples Nos. 1544-1556, one of which (No. 1555) was reported to be "not genuine"
837	Accredited Milk ..	Informal	6.66% deficient of fat	Followed-up by formal samples Nos. 1557-1561, two of which were reported to be "not genuine"
1537	Milk ..	Formal	13.3% deficient of fat	} Follow-ups of informal sample No. 821
1538	Milk ..	Formal	6.6% deficient of fat	
1540	Milk ..	Formal	6.6% deficient of fat	
1541	Milk ..	Formal	13.3% deficient of fat	
1542	Milk ..	Formal	6.6% deficient of fat	
1555	Milk ..	Formal	2.0% deficient of solids-not-fat	Follow-up of informal sample No. 825
876	Tuberculin Tested Milk ..	Informal	30% deficient of fat	11 Formal samples taken as follow-ups, Nos. 1563-1573, eight of which were found to be "not genuine"
1560	Milk ..	Formal	3.33% deficient of fat	} Follow-ups of informal sample No. 837
1561	Milk ..	Formal	10% deficient of fat	
913	Tuberculin Tested Milk ..	Informal	23.3% deficient of fat and 1.42% deficient of solids-not-fat	Four formal samples (Nos. 1574-1577) were taken as follow-ups, all of which proved to be genuine
911	Accredited Milk ..	Informal	23.3% deficient of fat and 0.24% deficient of solids-not-fat	Five formal samples (Nos. 1580-1584) were taken as follow-ups, Nos. 1582 and 1584 being "not genuine"

TABLE C—continued

Sample No.	Article	Formal, Informal or Private	Nature of Offence	Action taken
905	Tuberculin Tested Milk	Informal	6.66% deficient of fat	Reported to Chief Sanitary Inspector Two formal samples taken as follow-ups, Nos. 1578 and 1579 proved to be "not genuine"
915	Accredited Milk	Informal	26.7% deficient of fat	
1563	Milk	Formal	6.66% deficient of fat	Follow-ups of informal sample No. 876
1566	Milk	Formal	6.66% deficient of fat	
1567	Milk	Formal	10.0% deficient of fat	
1568	Milk	Formal	13.3% deficient of fat	
1569	Milk	Formal	6.66% deficient of fat	
1570	Milk	Formal	16.7% deficient of fat	
1572	Milk	Formal	33.3% deficient of fat	
1573	Milk	Formal	20.0% deficient of fat	
1579	Milk	Formal	23.3% deficient of fat and 1.77% deficient of solids-not-fat	Follow-ups of informal sample No. 915. Two "appeal to cow" samples taken, one of which was reported as "genuine, but abnormal sample of milk"
1582	Milk	Formal	7.66% deficient of fat	Follow-ups of informal sample No. 911
1584	Milk	Formal	8.0% deficient of fat and 1.18% deficient of solids-not-fat	
997	Tuberculin Tested Milk	Informal	4.4% deficient of solids-not-fat. The freezing point determination indicated the presence of 3.0% added water	Nine formal samples were taken as follow-ups (Nos. 1587-1595) all of which were reported genuine. A further nine informal samples were taken later at the request of the farmer, three of which were found to be "not genuine" (Nos. 1069, 1070 and 1076)
998	Tuberculin Tested Milk	Informal	3.5% deficient of solids-not-fat. The freezing point determination indicated the presence of 1.3% added water	
991	Tuberculin Tested Milk	Informal	2.94% deficient of solids-not-fat. No added water present	Reported to Chief Sanitary Inspector

TABLE C—continued

Sample No.	Article	Formal, Informal or Private	Nature of Offence	Action taken
992	Tuberculin Tested Milk ..	Informal	2.58% deficient of solids-not-fat. No added water present	Reported to Chief Sanitary Inspector
994	Tuberculin Tested Milk ..	Informal	20.0% deficient of fat and 1.17% deficient of solids-not-fat	19 Informal samples taken as follow-ups, Nos. 1078-1096, ten of which proved to be "not genuine"
1027	Tuberculin Tested Milk ..	Informal	2.35% deficient of solids-not-fat. No added water present	Reported to Chief Sanitary Inspector
1029	Tuberculin Tested Milk ..	Informal	2.35% deficient of solids-not-fat. No added water present	Reported to Chief Sanitary Inspector
1030	Tuberculin Tested Milk ..	Informal	3.18% deficient of solids-not-fat. No added water present	Reported to Chief Sanitary Inspector
1039	Tuberculin Tested Milk ..	Informal	2.35% deficient of solids-not-fat. No added water present	Reported to Chief Sanitary Inspector
1069	Milk ..	Informal	6.66% deficient of fat ..	} Follow-ups of informal samples Nos. 997 and 998 and formal samples Nos. 1587-1595. (Taken at request of the farmer)
1069	Milk ..	Informal	10% deficient of fat ..	
1076	Milk ..	Informal	6.66% deficient of fat ..	
639	Accredited Milk ..	Informal	10% deficient of fat ..	Four formal follow-up samples taken, Nos. 1482-1485. No. 1484 was reported to be "not genuine"
652	Tuberculin Tested Milk ..	Informal	This milk appeared to have an excess of fat and was deficient of 8.8% solids-not-fat	Reported to Chief Sanitary Inspector
669	Accredited Milk ..	Informal	3.06% deficient of solids-not-fat ..	Reported to Chief Sanitary Inspector
1484	Milk ..	Formal	13.3% deficient of fat and "barely-up-to-the-mark" as regards solids-not-fat content	Follow-up of informal sample No. 639
689	Tuberculin Tested Milk ..	Informal	13.3% deficient of fat ..	Formal follow-up samples taken, Nos. 1486-1493, which proved to be genuine



TABLE C—continued

Sample No.	Article	Formal, Informal or Private	Nature of Offence	Action taken
691	Tuberculin Tested Milk ..	Informal	16.7% deficient of fat ..	Formal follow-up samples taken, Nos. 1494-1503, which proved to be genuine
692	Tuberculin Tested (Farm Bottled) Milk	Informal	3.3% deficient of solids-not-fat	Reported to Chief Sanitary Inspector
704	Tuberculin Tested (Channel Islands) Milk ..	Informal	20% deficient of fat ..	Further formal follow-up samples, Nos. 1507-1510 proved to be genuine
738	Tuberculin Tested Milk ..	Informal	4.94% deficient of solids-not-fat ..	} Three formal samples taken as follow-ups, Nos. 1516-1518, all of which proved to be "not genuine"
739	Tuberculin Tested Milk ..	Informal	4.24% deficient of solids-not-fat ..	
741	Tuberculin Tested Milk ..	Informal	20% deficient of fat ..	Followed-up by formal samples, Nos. 1512-1515
751	Tuberculin Tested Milk ..	Informal	10% deficient of fat ..	11 Formal follow-up samples taken, Nos. 1519-1529, three of which proved to be "not genuine"
1512	Milk ..	Formal	10% deficient of fat ..	} Follow-ups of informal sample No. 741
1513	Milk ..	Formal	3.33% deficient of fat ..	
1514	Milk ..	Formal	4.66% deficient of fat and 1.18% deficient of solids-not-fat	} Follow-ups of informal samples Nos. 738 and 739
1516	Milk ..	Formal	2.94% deficient of solids-not-fat ..	
1517	Milk ..	Formal	0.94% deficient of solids-not-fat ..	} Follow-ups of informal sample No. 751
1518	Milk ..	Formal	5.88% deficient of solids-not-fat ..	
1521	Milk ..	Formal	3.33% deficient of fat ..	} Follow-ups of informal sample No. 751
1522	Milk ..	Formal	3.33% deficient of fat ..	
1524	Milk ..	Formal	2.00% deficient of fat ..	} Reported to Chief Sanitary Inspector
783	Tuberculin Tested Milk ..	Informal	6.66% deficient of fat ..	
784	Tuberculin Tested Milk ..	Informal	2.24% deficient of solids-not-fat ..	} Reported to Chief Sanitary Inspector
785	Tuberculin Tested Milk ..	Informal	1.88% deficient of solids-not-fat ..	

TABLE C—continued

Sample No.	Article	Formal, Informal or Private	Nature of Offence	Action taken
786	Tuberculin Tested Milk	Informal	1.77% deficient of solids-not-fat	Reported to Chief Sanitary Inspector
1079	Milk ..	Informal	0.24% deficient of solids-not-fat	
1081	Milk ..	Informal	6.66% deficient of fat	
1084	Milk ..	Informal	6.66% deficient of fat	
1087	Milk ..	Informal	10% deficient of fat	
1088	Milk ..	Informal	3.33% deficient of fat	
1089	Milk ..	Informal	10% deficient of fat	
1090	Milk ..	Informal	10% deficient of fat	
1091	Milk ..	Informal	10% deficient of fat	
1093	Milk ..	Informal	6.66% deficient of fat	
1095	Milk ..	Informal	10% deficient of fat	
1204	Tuberculin Tested Milk	Informal	6.6% deficient of fat	
1211	Tuberculin Tested Milk	Informal	3.3% deficient of fat	Seven formal samples taken as follow-ups (Nos. 1596-1602), all of which proved to be genuine Reported to Chief Sanitary Inspector Reported to Chief Sanitary Inspector Dairy notified, bottle replaced, but no blame put on dairy Two informal samples were taken as follow-ups (Nos. 1397 and 1398), which were found to be genuine Two informal samples were taken as follow-ups, Nos. 1399-1400. No. 1400 being "not genuine" Reported to Chief Sanitary Inspector Reported to Chief Sanitary Inspector Three formal samples taken as follow-ups (Nos. 1610-1612), one of which was found to be "not genuine"
1107	Tuberculin Tested Milk	Informal	16.7% deficient of fat	
S212	Milk ..	Private	Genuine milk, but the cap had been attacked by a small dog or cat	
1309	Tuberculin Tested Milk	Informal	6.66% deficient of fat	
1319	Tuberculin Tested Milk	Informal	6.66% deficient of fat	
1348	Tuberculin Tested Milk	Informal	10% deficient of fat	
1350	Tuberculin Tested Milk	Informal	3.3% deficient of fat	
1354	Accredited Milk ..	Informal	6.6% deficient of fat	

TABLE C—continued

Sample No.	Article	Formal, Informal or Private	Nature of Offence	Action taken
1360	Tuberculin Tested Milk ..	Informal	13.3% deficient of fat ..	Six informal samples taken as follow-ups (Nos. 1408-1413), which were reported as genuine
1364	Accredited Milk ..	Informal	10% deficient of fat ..	Seven informal samples (Nos. 1414-1420) taken as follow-ups, these were reported as genuine
1379	Accredited Milk ..	Informal	13.3% deficient of fat ..	Formal samples taken as follow-ups (Nos. 1617-1621), these were reported as genuine
1381	Tuberculin Tested Milk ..	Informal	16.7% deficient of fat ..	Formal samples taken as follow-ups (Nos. 1613-1616) were found to be genuine
1611	Milk ..	Formal	6.66% deficient of fat ..	Follow-up of informal sample No. 1354
1400	Milk ..	Informal	20% deficient of fat ..	Follow-up of informal sample No. 1319
1423	Tuberculin Tested (Farm Bottled) Milk ..	Informal	6.66% deficient of fat ..	Formal samples taken, Nos. 1622 and 1623, which were found to be "not genuine"
1622	Milk ..	Formal	23.3% deficient of fat and 3.18% of solids-not-fat ..	Follow-ups of informal sample No. 1423
1623	Milk ..	Formal	30% deficient of fat and 1.12% deficient of solids-not-fat ..	
1610	Milk ..	Informal	1.06% deficient of solids-not-fat (calculated average for the total consignment)	Reported to Chief Sanitary Inspector, who cautioned farmer
1611	Milk ..	Informal	2.0% deficient of solids-not-fat (calculated average for the total consignment)	
1606	Milk ..	Informal		Reported to Chief Sanitary Inspector, who cautioned farmer
1607	Milk ..	Informal		



TABLE C—continued

Sample No.	Article	Formal, Informal or Private	Nature of Offence	Action taken
1248	Milk	Informal	3.3% deficient of fat (calculated average for the total consignment)	Reported to Chief Sanitary Inspector, who cautioned farmer
1249	Milk	Informal	6.47% deficient of solids-not-fat (calculated average for the total consignment)	Reported to Chief Sanitary Inspector, who cautioned farmer
1577	Milk	Informal	2% deficient of solids-not-fat (calculated average for the total consignment)	Reported to Chief Sanitary Inspector, who cautioned farmer
1578	Milk	Informal	2.58% deficient of solids-not-fat (calculated average for total consignment)	Reported to Chief Sanitary Inspector, who cautioned farmer
1581	Milk	Informal	2.24% deficient of solids-not-fat. No added water present (calculated average for total consignment)	Reported to Chief Sanitary Inspector, who cautioned farmer
1582	Milk	Informal	15% deficient of fat	Formal follow-up samples taken (Nos. 1630-1633), two of which (Nos. 1632 and 1633) were found to be "not genuine"
1612	Milk	Informal	10% deficient of fat	Follow-ups of informal milk No. 1670. Reported to Town Clerk
1613	Milk	Informal	12.5% deficient of fat	
1651	Milk	Informal	1.66% deficient of solids-not-fat (calculated average for total consignment)	Reported to Chief Sanitary Inspector
1652	Milk	Informal	3.53% deficient of solids-not-fat (calculated average for total consignment)	
1670	Tuberculin Tested (Channel Islands) Milk	Informal		Reported to Chief Sanitary Inspector
1632	Tuberculin Tested (Channel Islands) Milk	Formal		
1633	Tuberculin Tested (Channel Islands) Milk	Formal		
1889	Tuberculin Tested Milk	Informal		
1890	Tuberculin Tested Milk	Informal		
2216	Tuberculin Tested Milk	Informal		
2217	Tuberculin Tested Milk	Informal		

TABLE C—continued

Sample No.	Article	Formal, Informal or Private	Nature of Offence	Action taken
1653	Milk (heated for drinking) ..	Formal	10.2% deficient of solids-not-fat. The freezing point determination indicated the presence of 11.32% added water	Vendor fined £10 Manageress fined £1
1654	Milk (heated for drinking) ..	Formal	16.66% deficient of fat. No added water present	
1655	Milk (heated for drinking) ..	Formal	40% deficient of fat. No added water present	Cautioned by M.O.H. Vendor said bottle was not fully shaken before use Vendor fined £10
2239	Milk (Ungraded) ..	Informal	1.18% deficient of solids-not-fat ..	Chief Sanitary Inspector notified
2265	Milk (Ungraded) ..	Informal	3.76% deficient of solids-not-fat ..	
2268	Milk (Ungraded) ..	Informal	1.18% deficient of solids-not-fat ..	
2274	Milk (Ungraded) ..	Informal	0.47% deficient of solids-not-fat ..	
2300	Milk (Ungraded) ..	Informal	0.59% deficient of solids-not-fat .. No added water was found in any of the above five samples	
2532	Tuberculin Tested (Farm Bottled) Milk ..	Informal	12.8% deficient of solids-not-fat. The freezing point determination indicated the presence of approximately 9.8% added water	Followed-up by three formal samples (Nos. 1659–1661), two of which were found to be “not genuine”
1659	Tuberculin Tested (Farm Bottled) Milk ..	Formal	5.9% deficient of solids-not-fat. The freezing point determination indicated the presence of at least 2.2% added water	Follow-ups of informal sample No. 2532
1660	Tuberculin Tested (Farm Bottled) Milk ..	Formal	5.3% deficient of solids-not-fat. The freezing point determination indicated the presence of 1.9% added water	Fined £2 in each case Pleaded guilty
S217	Milk Bottle ..	Private	Contained a foreign body (one black button and cotton)	Dairy cautioned by Sanitary Inspector

TABLE D(a). Food Samples other than Milk reported "Not Genuine"

Sample No.	Article	Formal, Informal or Private	Nature of Offence	Action taken
S224	Bread (Sliced) ..	Private	Contained a foreign body. (A piece of ferrous metal, possibly a portion of a nail)	Vendor pleaded guilty. Fined £5
S228	Bread (Slices) ..	Private	Contained foreign bodies. (Fragments of Malt Extract, globules of mineral oil, textile fibres, and newsprint)	Strong caution given by M.O.H. (Vendor leaving country—no further action)
1645	Bread and Butter ..	Formal	Found to be bread and margarine ..	Local Catering Association notified, and asked to warn members that notices should be displayed to the effect that margarine may be served in the place of butter
1646	Bread and Butter ..	Formal	Found to be bread and margarine ..	
1647	Bread and Butter ..	Formal	Did not contain pure butter, but consisted of bread and margarine. The margarine was calculated to contain 12% butter	
1468	Beet (Silver, canned) ..	Informal	Can in corroded condition. Not recommended for human consumption	Stock condemned
899	Butter Concentrate ..	Informal	68.2% deficient of butterfat claimed	Further samples taken
2287	Fruit Loaf ..	Informal	Slice of buttered fruit loaf on the surface of which was a cycle-chain anchor link	Inspector made investigations
S204	Grapefruit in Syrup ..	Private	Probably old stock—past the stage of fitness for human consumption	Rest of stock condemned
1137	Ice Cream ..	Informal	2% deficient of fat ..	A formal sample (No. 1224) taken as a follow-up proved to be genuine
1306	Jam (Blackcurrant) ..	Informal	The omission of the word "Jam" on the label constituted a contravention of the Labelling of Food Order, 1953	Vendor cautioned by M.O.H.
1307	Jam (Raspberry) ..	Informal	The omission of the word "Jam" on the label constituted a contravention of the Labelling of Food Order, 1953	Vendor cautioned by M.O.H.



TABLE D(a)—continued

Sample No.	Article	Formal, Informal or Private	Nature of Offence	Action taken
1301	Marzipan	Informal	Absence of details of origin, weight and composition, constituted a contravention of the Labelling of Food Order	Cautioned by H.O.H.
4176	Mussels	Informal	60% not clean	M.O.H. informed M.O.H. of area from which sample originated
4178	Mussels	Informal	50% not clean	M.O.H. wrote to M.O.H. of area from which sample originated. Supply confiscated
4182	Mussels	Informal	50% not clean	Further sample taken which proved to be genuine
4183	Mussels	Informal	70% not clean	District M.O.H. notified. Supply stopped
4185	Mussels	Informal	90% not clean	District M.O.H. notified
4186	Mussels	Informal	None clean	Supply stopped
4187	Mussels	Informal	70% not clean	District M.O.H. notified
S230	Orange (portion of)	Private	Contained two live grubs	Supply stopped
S196	Peanuts (prepacked)	Private	Unfit for human consumption	District M.O.H. notified
S218	Potted Meat	Private	Contained an undesirable foreign body (Verdigris)	Supply stopped
2308	Potted Meat	Informal	Contained 12.5% cereal filler. Meat Paste wrongly described as Potted Meat	Reported to M.O.H. Further sample taken which proved to be genuine. Packer's premises inspected M.O.H. cautioned the vendor, who promised to keep plant cleaner Followed up by formal Potted Meat Paste samples

TABLE D(a)—continued

Sample No.	Article	Formal, Informal or Private	Nature of Offence	Action taken
2309	Potted Meat ..	Informal	Contained 14% cereal filler. Meat Paste wrongly described as Potted Meat	Followed up by formal Potted Meat Paste samples
2310	Potted Meat ..	Informal	Contained 1.62% starch, equivalent to 4% cereal filler. Meat Paste wrongly described as Potted Meat	
1656	Potted Meat Paste ..	Formal	Meat Paste wrongly described as "Potted Meat Paste"	
1657	Potted Meat Paste ..	Formal	Meat Paste wrongly described as "Potted Meat Paste" ..	
S223	Pork Pie ..	Private	Heavily infested with a mould growth	Reported to M.O.H. Sanitary Inspector visited bakery, where he was told pie had probably been placed against hot bread in delivery van
2583	Pudding (Christmas)	Informal	Bore no label ..	Vendor cautioned by M.O.H.
2624	Puff Pastry ..	Informal	Insufficiently labelled. (Label did not give any declaration of ingredients)	
1631	Raisins ..	Informal	Contained 20% of currants ..	Vendor cautioned by M.O.H.
1239	Salt (Iodised)	Informal	29.3% deficient of the required amount of iodine	
1608	Salt (Iodised)	Formal	33% deficient of the minimum iodine content	Followed-up by a formal sample, No. 1608, which also proved to be "not genuine"
1921	Tapioca ..	Informal	Sago wrongly described as tapioca	Follow-up of informal sample No. 1239. Vendor cautioned by M.O.H.
977	Watercress ..	Informal	Unclean condition. Faecal coliform organisms found to be present	Sampling Officer cautioned vendor Reported to Chief Sanitary Inspector. M.O.H. contacted District M.O.H. of area from which sample originated, beds closed for five months

TABLE D(b). Drug Samples reported "Not Genuine"

Sample No.	Article	Formal, Informal or Private	Nature of Offence	Action taken
2577	Celery Pills ..	Informal	100% deficient of the stated amount of phenolphthalein ..	Formal sample taken, No. 1674, which proved to be genuine
2429	Cod Liver Oil Capsules ..	Informal	Insufficiently labelled ..	Labels to be amended on reprinting
1218	Compound Medicine ..	Informal	Genuine sample for which extravagant claims are made	M.O.H. cautioned manufacturer, who promised to amend labels and withdraw all old stock from sale
2206	Glycerin of Borax ..	Informal	8.3% deficient of borax ..	Cautioned by M.O.H. Stock withdrawn from sale
1712	Glycerin, Honey and Lemon	Informal	23% weight in volume deficient of the declared amount of sugar, calculated as invert sugar	Followed up by an informal sample, No. 1640, which also proved to be deficient of invert sugar
1640	Glycerin, Honey and Lemon	Informal	Contained some 23.3% weight in volume less than calculated invert sugar content	Follow-up of informal sample No. 1712. Vendor cautioned by M.O.H. 21st September, 1954
1868	Indigestion Mixture ..	Informal	Insufficiently labelled ..	Vendor cautioned by M.O.H. 21st September, 1954
1869	Indigestion Mixture ..	Informal	Insufficiently labelled ..	Vendor cautioned by M.O.H. 21st September, 1954
1870	Indigestion Mixture ..	Informal	Insufficiently labelled ..	Vendor cautioned by M.O.H. 21st September, 1954
2545	Penicillin Tablets .. (100,000 units)	Informal	63.9% deficient of required penicillin content	Stock confiscated by M.O.H.



TABLE D(b)—continued

Sample No.	Article	Formal, Informal or Private	Nature of Offence	Action taken
2656	Penicillin Tablets .. (100,000 units)	Informal	19% deficient of the required penicillin content .. ..	Manufacturer asked by M.O.H. to withdraw all available stocks from service
2657	Penicillin Tablets ..	Informal	96.5% deficient of the stated amount of penicillin	Manufacturer asked by M.O.H. to withdraw all available stocks from service
149	Sulphur Tablets ..	Informal	Not properly labelled as a medicine	Cautioned by M.O.H. Supplier agreed to amend label
150	Sulphur Tablets ..	Informal	Not properly labelled as a medicine	Cautioned by M.O.H.
152	Sulphur Tablets ..	Informal	Not properly labelled as a medicine	Cautioned by M.O.H.
1386	Vitamin C Tablets (50 mgm)	Informal	The tablets were of good quality, but an undesirable foreign body—namely a grub—was found in the sample	Vendor cautioned by M.O.H.

**TABLE E**  
**Results of Bacteriological Examinations of Milk, 1954**

Grade	Total No. examined	Total Test Void	Passed as satis- factory	No. which failed Me. Blue Test	More than 2.3 L.B.U.	% Satisfactory		
						1952	1953	1954
Tuberculin Tested (Farm Bottled) .. (including 29 Channel Island Milks)	65	—	61	4	—	98.7	98.7	93.8
Tuberculin Tested .. ..	1,051	—	898	153	—	93.4	89.1	85.4
Tuberculin Tested (Pasteurised) ..	53	—	53	—	—	98.0	100.0	100.0
Pasteurised .. ..	273	2	270	1	—	99.5	98.9	98.9
School Milk (Pasteurised) ..	65	—	65	—	—	100.0	100.0	100.0
Accredited .. ..	111	—	84	27	—	75.0	83.6	75.7
Sterilised .. ..	52	—	52	—	—	100.0	100.0	100.0
Total .. ..	1,670	2	1,483	185	—	95.2	92.2	88.8

TABLE F. Swimming Bath Waters Examined during 1954

Bath			No. examined	No. having satisfactory bacteriological quality	B. Coli too numerous or total count more than 1,000 per ml.	No. in which pH dose was too low	% passed as bacteriologically satisfactory
Cossington Street	..	..	10	10	—	1	100
Aylestone	..	..	22	22	—	—	100
Spence Street	..	..	4	4	—	—	100
Vestry Street	..	..	41	41	—	—	100
Total (Corporation Baths)			77	77	—	1	100
Kenwood Pool	..	..	6	6	—	—	100
Humberstone Lido	..	..	7	7	—	4	100
Total (all Baths)			90	90	—	5	100

In 7 of the above samples the Chlorine dose was of higher concentration than is desirable.



**TABLE G. Fertilisers and Feeding Stuffs Analysed in connection with  
the Fertilisers and Feeding Stuffs Act during 1954**

Sample	Number Examined	Number Satis- factory	Number Unsatisfactory		
			Compo- sition Incorrect	Statutory Declara- tion Defective	Total Unsatis- factory
<b>Fertilisers</b>					
Ammonium Sulphate ..	2	1	—	1	1
Bone Meal .. ..	4	4	—	—	—
Compound Fertilisers ..	8	8	—	—	—
Dried Blood .. ..	2	1	1	—	1
Hydrated Lime .. ..	1	1	—	—	—
Hoof and Horn Meal ..	1	1	—	—	—
Muriate of Potash ..	2	—	2	—	2
Nitrate of Soda .. ..	4	2	2	—	2
Nitro-Chalk .. ..	1	1	—	—	—
Potassium Sulphate ..	3	3	—	—	—
Superphosphate of Lime ..	1	1	—	—	—
<b>Feeding Stuffs</b>					
Baby Chick Mash ..	2	2	—	—	—
Calf Nuts .. ..	2	—	2	—	2
Dairy Nuts .. ..	2	1	1	—	1
Ewe and Lamb Nuts ..	1	—	1	—	1
High Protein Intensive Mash	1	—	1	—	1
Layers Meal .. ..	8	5	3	—	3
Pig Meal .. ..	3	2	1	—	1
Poultry Balancer Meal ..	1	1	—	—	—
Turkey Starter Meal ..	1	1	—	—	—
Total .. ..	50	35	14	1	15
<b>Private Fertilisers and Feeding Stuffs</b>					
Compost .. ..	1	1	—	—	—
Dairy Cubes .. ..	1	1	—	—	—
Grass Cubes .. ..	1	1	—	—	—
Pig Food .. ..	8	8	—	—	—
Total .. ..	11	11	—	—	—

TABLE H

**Miscellaneous Samples examined for various  
Corporation Committees**

Health Department				Education Department			
Sulphur Cylinders	..	49		Baking Tin	..	1	
Rain Water	..	25		Water—Chemical	..	2	
		—	74			—	3
				Museum			
Waters :				Deposit ex Saxon Urns..		1	
Chemical	..	9		Cement Finish	..	1	
Bacteriological	..	2				—	2
		—	11	Public Works Department			
Miscellaneous :				Concrete Residue	..	1	
Baby Food	..	1		Deposit (Sewer)	..	1	
Bath Waters	..	90		Waters—Chemical	..	2	
Cooked Apple	..	1				—	4
Deposit (Water)	..	1		Town Clerk			
Gammon Slice	..	2		Turkish Delight	..	1	
Laminated Plastic						—	1
Material	..	1		Weights and Measures			
Meat Dye	..	1		Department			
Urine	..	1		Leakage Water	..	1	
Phosphatase Milk	..	1,260				—	1
Soap Samples for							
Annual Contract	..	39		Total	..	1,493	
		— 1,397					

**TABLE I**  
**Miscellaneous Samples from other sources**

Article	No.	Article	No.
<b>Foods, Drugs and Beverages :</b>		<b>Miscellaneous :</b>	
Beans .. .. .	3	Deposit (Tile Facing Material)	3
Beer .. .. .	6	Effluent .. .. .	1
Cocoa .. .. .	6	Grass Cubes .. .. .	1
Cream .. .. .	3	Grit .. .. .	1
Milk .. .. .	6	Iron Oxide .. .. .	1
Prescriptions .. .. .	2	Oil .. .. .	1
Sausages .. .. .	2	Petrol .. .. .	1
Tablet .. .. .	1	Photo : Engraving Acid .. .. .	1
Throat Lozenges .. .. .	1	Pig Food .. .. .	9
		Sewage .. .. .	278
		Soil .. .. .	4
		Solvent .. .. .	3
		Waters (Chemical) .. .. .	51
		Waters (Bacteriological) .. .. .	59
<b>Miscellaneous :</b>			—
Atmospheric Dust .. .. .	2		
Cans .. .. .	2		
Cement .. .. .	1		
Deposit (Water) .. .. .	1		
		Total .. .. .	450
			—

**TABLE J**  
**Samples submitted by Members of the Public under**  
**Food and Drugs Act, 1938**

Article	No.	Article	No.
Boiled Egg .. .. .	1	Mushroom Soup .. .. .	1
Bread .. .. .	2	Orange .. .. .	1
Bread and Butter .. .. .	1	Orange Juice .. .. .	1
Cake .. .. .	1	Peanuts .. .. .	1
Chocolates .. .. .	1	Pork Pie .. .. .	1
Cooking Fat .. .. .	1	Potted Meat .. .. .	2
Corned Beef .. .. .	1	Salt .. .. .	1
Cream .. .. .	3	Sugar (Demerara) .. .. .	2
Dutch Cheese .. .. .	1	Sugar (Icing) .. .. .	1
Fish (Canned) .. .. .	1	Sweets .. .. .	1
Fynnon Salt .. .. .	1	Tea .. .. .	2
Grapefruit (Canned, Bottled) .. .. .	3	Tea (Infused) .. .. .	1
Glucose Beverage .. .. .	1	Tea Leaves (Dried) .. .. .	1
Margarine .. .. .	1	Toffee Apples .. .. .	1
Milk .. .. .	3		—
Milk Bottle .. .. .	1		
Muscateles and Almonds .. .. .	1	Total .. .. .	41
			—



**TABLE L**  
**Samples of Milk examined by the Phosphatase Test, 1954**

	Dairy	Number Examined	Total Test Void	No. giving less than 2.3 Blue Units : Efficient Pasteurisation	% of Total Satisfactory, 1954	% Satisfactory in previous years		
						1953	1952	1951
No. 1	..	250	2	250	100.0	100.0	99.6	100.0
No. 2	..	252	—	252	100.0	100.0	100.0	100.0
No. 3	..	251	1	251	100.0	100.0	99.6	100.0
No. 4	..	250	2	250	100.0	100.0	100.0	99.2
No. 5	..	250	2	247	98.8	100.0	99.6	98.7
Miscellaneous (mainly samples submitted for Bacteriological Tests)	..	141	—	141	100.0	100.0	99.2	92.2
Total	..	1,394	7	1,391	99.8	100.0	99.8	98.8

TABLE K

**Summary of Samples examined by Bacteriological Methods  
during 1954**

Milk .. .. .	1,609
Pasteurised Milk supplied to Schools .. .. .	65
Reservoir and other Waters (for Water Committee) .. .. .	1,898
Waters (for Health Committee) .. .. .	2
Swimming Bath Waters .. .. .	90
Miscellaneous Waters .. .. .	59
Shellfish .. .. .	23

TABLE N

**Ice Cream Samples**

Year	Fat Average %	Milk Solids Average %	Sucrose Average %	Ash Average %	No. of samples examined
1951 ..	9.3	10.6	13.2	0.80	167
1952 ..	8.8	8.8	13.0	0.76	110
1953 ..	8.8	9.4	10.4	0.83	216
1954 ..	8.7	10.5	14.4	0.87	77

TABLE O

**Atmospheric Pollution**

Lead Peroxide Method for SO<sub>2</sub> Average Monthly Figures for 1954  
Results expressed in mgms. of SO<sub>2</sub> per 100 sq. cm. per day

Month	Station			
	Grey Friars	Westcotes	Evington	Town Hall
January ..	3.571	2.033	0.949	3.679
February ..	3.189	1.973	0.581	3.770
March ..	3.144	1.583	0.494	3.230
April ..	1.922	1.051	0.501	2.196
May ..	1.750	0.723	0.300	1.738
June ..	0.951	0.374	0.161	1.182
July ..	1.114	0.635	0.363	1.443
August ..	0.970	0.380	0.300	1.070
September ..	1.458	0.369	0.293	2.250
October ..	2.111	0.503	0.264	3.236
November ..	2.940	1.420	0.399	3.888
December ..	3.000	1.220	0.580	3.600

TABLE P. Atmospheric Pollution  
Figures obtained from Standard Deposit Gauges

Site of Gauge	Year	Average Monthly Rainfall Inches	Average Deposit in tons per square mile per month					Soluble Deposit	'Total Deposit
			Insoluble Deposit						
			Tar	Soot	Ash	Total			
Town Hall Roof	1942	1.76	0.15	4.02	17.25	21.42	7.05	28.47	
	1943	1.72	0.13	3.63	17.19	20.95	6.63	27.58	
	1944	2.39	0.12	3.65	15.45	19.22	6.29	25.51	
	1945	1.79	0.19	3.80	13.56	17.55	6.18	23.73	
	1946	2.73	0.33	3.57	11.81	15.71	6.66	22.37	
	1947	1.80	0.25	2.94	9.06	12.25	5.75	18.02	
	1948	2.19	0.19	4.96	9.13	14.28	5.46	19.74	
	1949	1.92	0.26	4.89	9.94	15.09	5.91	20.98	
	1950	2.00	0.33	5.09	16.22	21.64	8.44	30.00	
	1951	2.50	0.27	4.33	17.94	22.54	10.22	32.76	
	1952	1.98	0.27	3.71	15.33	19.31	7.41	26.72	
	1953	1.77	0.28	4.50	12.07	16.87	8.68	25.55	
	1954	2.62	0.19	5.12	11.29	16.61	8.17	24.78	
Average for 13 years		2.09	0.23	4.17	13.56	17.95	7.14	25.09	
Evington	1951	2.84	0.11	1.15	1.84	3.10	3.76	6.86	
	1952	2.04	0.12	1.96	3.05	5.13	3.91	9.04	
	1953	1.79	0.10	1.18	1.40	2.35	2.83	5.18	
	1954	2.57	0.05	1.84	1.40	3.30	3.80	7.10	
Average for 4 years		2.31	0.10	1.53	1.92	3.47	3.57	7.04	



TABLE W

## Samples Submitted by the Water Department

Waters (Chemical)	..	..	..	1,617
Waters (Bacteriological)	..	..	..	1,602
Waters (Biological)	..	..	..	89
Daily City Supply Waters		..	..	296
Bitumen	..	..	..	1
Green Slime	..	..	..	1
Oil	..	..	..	1
Rock	..	..	..	1
Sand	..	..	..	4
Soil	..	..	..	2
Total				3,614

TABLE W(a)

## THORNTON IMPOUNDING RESERVOIR

## Summary of Samples taken during 1954

	Average	Range	No. of samples
<b>Raw</b>			
pH .. .. .	8.0	7.5—9.0	55
Colour (Hazen Scale) ..	25	10—47	54
Turbidity (p.p.m. SiO <sub>2</sub> ) ..	6.7	Nil—45	43
Probable No. of Coliform Organisms per 100 ml. ..	—	Nil—100 100—180 More than 180	36 5 10
<b>Filtered</b>			
pH .. .. .	7.5	7.3—7.8	152
Colour (Hazen Scale) ..	14	4—30	150
Probable No. of Coliform Organisms per 100 ml. ..	—	Nil—10 10—18 More than 18	141 5 7
<b>Chlorinated</b>			
pH .. .. .	7.4	7.1—7.9	152
Colour (Hazen Scale) ..	8	4—20	149
Probable No. of Coliform Organisms per 100 ml. ..	Nil	—	152
<b>In Supply</b>			
pH .. .. .	7.4	7.2—7.7	53
Colour (Hazen Scale) ..	8	3—16	53
Probable No. of Coliform Organisms per 100 ml. ..	Nil	—	53

TABLE W(b)

## CROPSTON IMPOUNDING RESERVOIR

## Summary of Samples taken during 1954

	Average	Range	No. of samples
<b>Raw</b>			
pH .. .. .	7.6	7.3—8.2	54
Colour (Hazen Scale) ..	21	11—35	54
Turbidity (p.p.m. SiO <sub>2</sub> ) ..	3.5	Nil—12	47
Probable No. of Coliform Organisms per 100 ml. ..		Nil—100 100—180 More than 180	39 5 14
<b>Filtered</b>			
pH .. .. .	7.2	6.9—7.6	103
Colour (Hazen Scale) ..	10	3—17	104
Probable No. of Coliform Organisms per 100 ml. ..		Nil—10 10—18 More than 18	98 10 2
<b>Chlorinated</b>			
pH .. .. .	7.2	7.0—7.8	94
Colour (Hazen Scale) ..	7	3—14	95
Probable No. of Coliform Organisms per 100 ml. ..	Nil	—	95
<b>In Supply</b>			
pH .. .. .	7.2	6.9—7.4	47
Colour (Hazen Scale) ..	6	3—11	47
Probable No. of Coliform Organisms per 100 ml. ..	Nil	—	47



TABLE W(c)

## SWITHLAND IMPOUNDING RESERVOIR

## Summary of Samples taken during 1954

	Average	Range	No. of samples
<b>Raw</b>			
pH .. .. .	7.3	7.6—9.1	61
Colour (Hazen Scale) ..	21	8—32	61
Turbidity (p.p.m. SiO <sub>2</sub> ) ..	3.0	Less than 1—13	48
Probable No. of Coliform Organisms per 100 ml. ..		Nil—100	47
		100—180	5
		More than 180	9
<b>Filtered</b>			
pH .. .. .	7.5	7.1—8.2	104
Colour (Hazen Scale) ..	9	4—20	105
Probable No. of Coliform Organisms per 100 ml. ..		Nil—10	97
		10—18	18
		More than 18	6
<b>Chlorinated</b>			
pH .. .. .	7.4	7.1—8.2	98
Colour (Hazen Scale) ..	6	4—14	99
Probable No. of Coliform Organisms per 100 ml. ..	Nil	—	98
<b>In Supply</b>			
pH .. .. .	7.7	7.2—8.2	51
Colour (Hazen Scale) ..	6	4—11	51
Probable No. of Coliform Organisms per 100 ml. ..	Nil	—	51

TABLE W(d)

## DERWENT SUPPLY

## Summary of Samples taken during 1954

	Average	Range	No. of Samples
<b>Incoming Water to Hallgates Filter Station</b>			
pH .. .. .	8.1	7.3—9.6	152
Colour (Hazen Scale) ..	5	3—9	149
Probable No. of Coliform Organisms per 100 ml. ..		Nil 2	150 2
<b>Outgoing Water from Hallgates Filter Station</b>			
pH .. .. .	8.1	7.3—9.6	152
Colour (Hazen Scale) ..	5	3—8	150
Probable No. of Coliform Organisms per 100 ml. ..		Nil 1	151 1
<b>In Supply</b>			
pH .. .. .	8.3	7.2—9.6	54
Colour (Hazen Scale) ..	5	2—8	54
Probable No. of Coliform Organisms per 100 ml. ..	Nil	—	54

# **Report on the Sanitary Inspection Department for the year 1954**

by

G. A. HILLER, F.R.San.I., A.M.I.S.E., F.S.I.A.

Chief Sanitary Inspector

All through 1954 the Department has been greatly embarrassed and hindered in its work by the shortage of sanitary inspectors. At the end of the year there were eight vacancies in the sanitary inspectorate establishment of 32. At one time the staff was down to 19.

In spite of this the year under review has been one of considerable achievement.

Slum clearance work has gone on apace and by the end of the year the whole of the Wharf Street Redevelopment area had been dealt with as regards the preliminary survey of premises and representation to the Health Committee. However, it must be pointed out that this was accomplished only at the expense of other work, particularly the follow-up procedure in connection with complaints of nuisance, mainly housing defects. In short, it has been taking far too long to enforce essential repairs to houses.

The Housing Repairs and Rents Act, 1954, became law on 30th August last and the true effect of this Act which enabled landlords to increase house rents subject to certain conditions including the right of a tenant to obtain from the Local Authority a Certificate of Disrepair, was just beginning to be felt. The Act has complicated rather than clarified the work of the sanitary inspectors.

The return to private slaughtering and cessation of Ministry Control of livestock marketing in July brought to the fore the obsolete condition of a number of the old slaughterhouses in the City and it was gratifying to find that the standard required by the Department was upheld by the Magistrates in each instance where there was an appeal against the Health Committee's decision not to grant a slaughterhouse licence.

The result of the removal of restrictions on slaughtering has been an increase in killing and just over 160,000 carcasses were prepared for food



during the calendar year. Despite staffing problems everyone of these carcasses was inspected and it is vital that it should be so but, again, other work has had to suffer.

This short introduction would not be complete without an expression of thanks for the appreciation and understanding shown by the Health Inspection Sub-Committee of the work done in the Department under staffing conditions which make expediency the first consideration rather than a methodical and controlled administration. Similarly, I am grateful to Dr. E. K. Macdonald for his help and encouragement and to all the sanitary inspectors, clerks, and out-door assistants who have worked so loyally and well during a difficult year.

STAFF

The establishment is made up as follows :

- 1 Chief Sanitary Inspector
- 1 Deputy Chief Sanitary Inspector
- 4 Divisional Sanitary Inspectors
- 6 Specialist Inspectors :
  - 2 Meat Inspection
  - 1 Cafes and Restaurants
  - 1 Food and Drugs Act Sampling
  - 1 Shops Act
  - 1 Smoke Abatement (vacant)
- 20 Sanitary Inspectors (7 vacancies)
- 1 Food Hygiene Officer (female)
- 4 Pupil Sanitary Inspectors
- 1 Chief Clerk
- 6 Clerks
- 6 Sanitary Assistants (Manual Staff)
- 1 Abattoir Assistant (Manual Staff)

During the year the Health Committee accepted the principle of articulated pupilage for young men wishing to become sanitary inspectors, and four appointments were made.

GENERAL SANITARY CIRCUMSTANCES

Complaints and Inspections

Accumulations of Refuse ..	..	..	..	28
Choked and Defective Drains	..	..	..	173
Defective Water Supply ..	..	..	..	135
Defective Water Closets ..	..	..	..	428
General Housing Defects..	..	..	..	1,449
Flood Water in Houses ..	..	..	..	43
Overcrowding ..	..	..	..	499

Infestations : Inspect Pests, Rats and Mice ..	..	141
Keeping of Animals .. .. .	..	25
Offensive Odours .. .. .	..	81
Factory Conditions (Sanitation) .. .. .	..	63
Smoke Nuisances .. .. .	..	57
Miscellaneous .. .. .	..	67
		<hr/>
		3,189
		<hr/>

## SYNOPSIS OF SANITARY INSPECTION WORK

	Inspections	Re-inspections	Total
Accumulations .. .. .	76	40	116
Agricultural Produce (Grading and Marking) Act .. .. .	2	—	2
Animals, Poultry, Swine, etc. ..	40	19	59
Ashpits and Ashbins .. .. .	2	3	5
Bakehouses .. .. .	24	10	34
Canal Boats .. .. .	5	—	5
Cesspools .. .. .	30	5	35
Closets—Water .. .. .	600	733	1,333
„ Pails .. .. .	31	—	31
Cold Stores .. .. .	17	—	17
Common Lodging Houses .. .. .	27	9	36
Complaints Received .. .. .	3,554	86	3,640
Complaints Confirmed .. .. .	3,513	—	3,513
„ „ Re-visits .. .. .	—	7,262	7,262
Cowsheds .. .. .	—	—	—
Dairies .. .. .	221	6	227
Dangerous Structures .. .. .	38	41	79
Ditches and Watercourses .. .. .	104	3	107
Drains—Inspected .. .. .	714	1,370	2,084
„ Smoke Tests .. .. .	160	85	245
„ Chemical Tests .. .. .	8	—	8
„ Colour Tests .. .. .	70	42	112
Entertainment Houses .. .. .	2	—	2
Factories .. .. .	184	102	286
Fish Frying Premises .. .. .	12	—	12
Food Examination .. .. .	674	35	709
Food Manufacturing Premises .. .. .	177	18	195
Food Vendors' Vehicles .. .. .	2	2	4
Food Warehouses .. .. .	634	84	718
Hotel and Restaurant Kitchens .. .. .	751	646	1,397
Houses Let in Lodgings .. .. .	13	4	17
Houses re Infectious Disease .. .. .	258	47	305
„ „ „ Contacts .. .. .	87	20	107
„ Specimens of Faeces, etc. .. .. .	121	11	132
„ Disinfection .. .. .	281	7	288
„ Overcrowding .. .. .	685	59	744
„ Vermin .. .. .	646	104	750
	<hr/>	<hr/>	<hr/>
Carried forward .. .. .	13,763	10,853	24,616

			Inspections	Re-inspections	Total
Brought forward	..	..	13,763	10,853	24,616
Housing Acts :					
Section 9 (Repairs)—					
Houses	..	..	931	2,850	3,781
Other Buildings	..	..	—	—	—
Section 11 (Individual Unfit)—					
Houses	..	..	274	112	386
Other Buildings	..	..	3	—	3
Section 25 (Clearance Areas)—					
Houses	..	..	1,552	64	1,616
Other Buildings	..	..	1	7	8
Special Visits	..	..	1,221	8	1,229
Ice Cream Premises	..	..	423	55	478
Markets—Retail Fish	..	..	140	2	142
„ Retail Provision	..	..	270	3	273
„ Wholesale Fish	..	..	119	—	119
„ Wholesale Fruit and Vegetable	..	..	306	—	306
Meeting with Owner or Tradesman	..	..	1,437	54	1,491
Merchandise Marks Act	..	..	108	5	113
Milk Shops	..	..	365	25	390
Offensive Trade Premises	..	..	17	9	26
Outworkers	..	..	180	—	180
Pet Animals Shops	..	..	13	4	17
Piggeries	..	..	19	17	36
Samples for analysis :					
visits, etc., re foodstuffs, water, rag					
flocks, etc.	..	..	1,795	1	1,796
Schools	..	..	5	3	8
Sewers, etc.	..	..	14	10	24
Shops—Fish	..	..	59	1	60
„ Fruit	..	..	64	9	73
„ Meat	..	..	182	2	184
„ Other Food Shops	..	..	382	125	507
Shops Acts	..	..	530	511	1,041
Slaughterhouses—Private	..	..	288	30	318
Smoke Observations	..	..	39	10	49
Special Visits re Smoke	..	..	210	63	273
Stables	..	..	4	3	7
Street Gullies	..	..	3	—	3
Streets or Back Roads	..	..	1	1	2
Tips	..	..	2	—	2
Urinals—Private	..	..	6	—	6
„ Public	..	..	7	—	7
Van Dwellings	..	..	98	120	218
Wells	..	..	7	—	7
Yards and Courts	..	..	23	77	100
Grand Totals	..	..	24,861	15,034	39,895



Comparative figures for 1953	..	31,946	19,951	51,897
Notices—Served—Informal	..	..	..	2,367*
Formal ..	..	..	..	50
Complied with—Informal ..	..	..	..	2,396
Formal ..	..	..	..	35

\*(Includes 1,099 notices served in previous years)

## Drainage, Sanitation and Water Supply

There was little change during the year as regards water supplies and sanitary accommodation to dwelling houses. The Census of 1951 indicated that the position was as follows :

Houses without internal water supply	..	..	12,200
Houses without a separate water closet	..	..	17,300

The houses in which these circumstances exist are contained almost entirely in the first ten-year schemes of slum clearance and as would be expected, a large proportion are houses with which it is hoped to deal by clearance procedure in the next five years. A summary of the Wharf Street Re-development Area showed the figures to be 739 and 1,048 respectively.

There are very few cesspools, pail closets and shallow well water supplies remaining in the City.

	1953	1954
Number of known cesspools	87	86
Number of known pail closets	73	72
Houses where separate water supply provided	4	16
Houses where separate water closets provided	10	4
Drains unstopped by Sanitary Department ..	146	177

## Disinfection and Disinfestation

Owing to the demands for disinfestation of bedding, soft furnishings and the like due to the commencement of slum clearance and rehousing of tenants, the use of the steam disinfecting plant at Groby Road Hospital had to be discontinued. Temporary arrangements have been made for the use of the apparatus at Hillcrest, but there is work for much larger plant and premises. The Committee at Hillcrest and Mr.

Healey, the Superintendent, have been most helpful and thanks are due to them.

By the time this Report is presented the new disinfecting and disinfestation station at Welford Road should be completed and in use.

In the slum clearance areas disinfestation of premises is done by spraying with special insecticides. This method is found to be entirely satisfactory and is less costly than gaseous methods as well as being entirely devoid of danger.

Houses disinfected	..	..	..	..	480
Houses disinfested	..	..	..	..	1,118
Bedding, clothing, etc., steam-treated			..	..	1,856
Articles disinfected prior to export..			..	..	40

### Common Lodging House and Houses Let in Lodgings

There is only one common lodging house in Leicester but there are several places where transport drivers can obtain a night's rest. Inspections have shown these places to be clean and provided with reasonable amenities.

Little has been done in houses let in lodgings apart from dealing with complaints. There is a need for regular inspection of such houses in the light of the Housing Repairs and Rents Act, 1954.

### Movable Dwellings

The Health Committee regards the use of tents and caravans for living accommodation as quite unsuited to the general character of a large industrial city. During the year active steps were taken to deal with this problem and some progress was made. The greatest difficulty arises from the nuisance and annoyance caused all too frequently by van dwellers who come into the city for comparatively short periods in search of a living mainly, these days, from the collection and sale of waste metal and other materials.

Caravans and tents were found to be on 39 different sites and 249 visits have been made by sanitary inspectors. This represents a considerable amount of time and usually the owners of the land have to be found and persuaded to clean up after the vans and their occupants have left. It is not surprising that owners of land resent this.

## Knackers' Yards

Until the end of the year there were two knackers yards in existence. One had been out of use for some years and when reviewing the licensing of such premises it was decided not to permit these premises to continue in use for the slaughtering of animals. The Council's decision was accepted by the owners.

The remaining knacker's yard does a considerable amount of business and a licence was granted subject to the premises being brought up to the standard approved by the Health Committee. This work is in progress.

## Offensive Trades

The registered offensive trades are as shown below :

Tripe Dressers	..	..	..	6
Marine Store Dealers	..	..	..	8

From time to time complaints of nuisance are received concerning some of these premises. This is due partly to housing development which has occurred very near to old-established businesses. Some of the premises will disappear as the re-development of the city progresses.

## Pet Animals

Under the Pet Animals Act, 1951, all shops and premises in which pet animals (other than pedigree stock) are sold must be licensed by the local authority.

In Leicester 28 such premises have been licensed and 43 visits were made to them. Apart from minor infringements the licensing conditions were being observed.

## Factories

The number of registered factories and the inspections made are shown in the following Table.

It will be seen that the inspections bear little relationship to the number of premises ; in fact the only visits which can be made at present are those necessitated by complaints from H.M. Factory Inspectors or workers in the factories.



# OBSERVATIONS ON THE ADMINISTRATION OF THE FACTORIES ACT, 1937

## PART I OF THE ACT

### 1.—INSPECTIONS for purposes of provisions as to health (inspections made by Sanitary Inspectors)

Premises (1)	Number on Register (2)	Number of		
		Inspections and Re-Inspections (3)	Written notices (4)	Occupiers prosecuted (5)
(i) Factories in which Sections 1, 2, 3, 4 and 6 are to be enforced by Local Authorities .. .. .	92	1	1	—
(ii) Factories not included in (i) in which Section 7 is enforced by the Local Authority .. .. .	2,110	319	49	—
(iii) Other Premises in which Section 7 is enforced by the Local Authority* (excluding out-workers' premises) .. .. .	—	—	—	—
Total .. .. .	2,202	†320	50	—

(†Includes 34 visits to Bakehouses)

\**i.e.*, Electrical Stations (Section 103(1)), Institutions (Section 104) and sites of Building Operations and Works of Engineering Construction (Sections 107 and 108).

2.—Cases in which DEFECTS were found

Particulars (1)	Number of cases in which defects were found				Number of cases in which prosecutions were instituted (6)
	Found (2)	Remedied (3)	Referred To H.M. Inspector (4)	By H.M. Inspector (5)	
Want of cleanliness (S.1) ..	—	2	—	2	—
Overcrowding (S.2) ..	—	—	—	—	—
Unreasonable temperature (S.3) ..	—	—	—	—	—
Inadequate ventilation (S.4) ..	—	—	—	—	—
Ineffective drainage of floors (S.6) ..	—	—	—	—	—
Sanitary Conveniences (S.7) :					
(a) insufficient ..	—	3	—	—	—
(b) unsuitable or defective ..	66	42	—	44	—
(c) not separate for sexes ..	2	1	—	1	—
Other offences against the Act (not including offences relating to Outwork) ..	—	—	—	—	—
Total ..	68	*48	—	47	—

(\*Includes 29 from previous years)

## Outworkers

In recent years the statutory notification of outworkers had fallen off very considerably and during 1954 manufacturing firms were reminded of their obligation to give notice twice a year of the addresses at which "homework" was being done. As a result, the number of addresses registered was more than doubled (1,519). Unfortunately, losses of staff have made it impossible for any methodical inspection to be done in order to see that articles, particularly wearing apparel, are made in clean homes. However, some 180 inspections have been recorded after visits to the houses for other primary purposes such as infectious disease enquiries and housing inspections.

### OUTWORK (Sections 110 and 111)

Total number of outworkers in August, 1954, was as shown below :

Wearing Apparel, Making, etc. . . . .	1,505
Umbrellas, etc. . . . .	14
Total . . . . .	1,519

## ATMOSPHERIC POLLUTION

During the year there has been a marked increase in the number of complaints made regarding the emission of smoke and grit from industrial and trade premises.

This is more likely to be due to an increased awareness among the public following the greater space given on the subject of smoke pollution by the national press than to any measurable increase in the extent to which pollution of the air occurs in Leicester.

The Beaver Committee published their Report in November, 1954. This Committee was set up by the Ministers of Housing and Local Government and Fuel and Power, following the dramatic increase in deaths from respiratory conditions in London following a period of four days of "Smog" in December, 1952.

The Committee's recommendations are set out below and it is gratifying to see that the control of atmospheric pollution is considered best dealt with by the local authorities, apart, possibly from certain



special problems, and that it is recognised that the powers at present at their disposal are inadequate.

## SUMMARY OF RECOMMENDATIONS

Recommendations entailing legislation :

(1) Subject to certain exceptions the emission of dark smoke from any chimney should be prohibited by law.

(2) The use of efficient grit and dust arresting plant should be obligatory in new industrial installations which burn pulverized fuel, or solid fuel in any form at a maximum rate of 10 tons an hour or more. It should be the duty of the owner or occupier of premises on which any such installation, new or existing, is situated, to take measurements of grit emission and to inform the local authority of the results if so required. In other industrial installations fired by solid fuel, all reasonably practicable steps should be taken to prevent the emission of grit and dust.

(3) In the case of certain industrial processes in which the prevention of dark smoke, grit or harmful gasses presents special technical difficulties, responsibility for ensuring that the best practical means of prevention are used at all times should be vested in the Alkali Inspectorate, and the provisions of the Alkali Acts should be extended accordingly.

(4) The provisions now in force under a number of local Acts for regulating the design of new industrial furnaces should be included in general legislation.

(5) The law for the control of smoke from railways, and of pollution from colliery spoilbanks, should be brought up to date and strengthened. Responsibility for enforcement should rest with the local authorities.

(6) Local Authorities should have power under general legislation by means of Orders requiring confirmation by the appropriate Ministers to establish (1) smokeless zones in which the emission of smoke from chimneys would be entirely prohibited ; and (2) smoke control areas in which the use of bituminous coal for domestic purposes would be restricted.

(7) Financial assistance should be provided by local authorities and by

the Exchequer towards the costs incurred by house owners in converting appliances in smokeless zones and smoke control areas.

(8) Domestic heating appliances installed in all new premises should be of approved types.

(9) The present purchase tax of 50 per cent on gas and electric room and water heaters should be removed.

(10) Except for the processes referred to in (3), responsibility for enforcing the law for the prevention of smoke and grit should be placed as a statutory duty on the local authorities.

(11) Local authorities should be required to submit annual reports on their progress in smoke abatement to the appropriate Minister.

(12) Penalties for smoke offences should be increased.

#### Other Recommendations :

(1) The following documents should be prepared and issued by the British Standards Institution :

(a) Codes of practice indicating the extent to which smoke can be reduced with good practice, and the means of securing such reductions.

(b) Standard specifications for smoke indicators, recorders and alarms.

(2) The British Standards Institution should also consider devising simpler standard methods of sampling flue gases to determine grit emissions.

(3) Stoking should be recognised as an operation requiring skill and firemen should be properly trained and remunerated.

(4) The Government Loan Scheme for approved fuel-saving equipment in industry should be extended to include equipment installed for the purpose of reducing air pollution.

(5) Consideration should be given to allowing the whole of the capital cost of new plant and equipment installed to save fuel and to prevent smoke to be charged against revenue for tax purposes in the year in which the expenditure is incurred.

(6) The most efficient practicable methods of removing sulphur

from flue gases should be adopted at all new power stations in or near populated areas.

(7) The factor of pollution should be taken into account when future schemes for the electrification of the railways are being considered and the programme of electrification should be accelerated and extended. The changeover from steam to diesel shunting locomotives should be accelerated.

(8) The present law for the control of pollution by motor vehicles should be more rigorously enforced.

(9) The prevention of domestic smoke will require the replacement of bituminous coal now used in domestic premises in the "black areas" by smokeless fuels, and also the provision of new appliances, fitted with easy means of ignition, in which such fuels can be burnt satisfactorily. This should be secured by the progressive extension of smokeless zones and smoke control areas as increased supplies of smokeless fuels are made available.

(10) The British Standards Institution should prepare specifications and methods of testing for coke for household use and for domestic solid fuel appliances.

(11) Clean air should be the declared national policy and it should be recognized both by the Government and the nationalised fuel industries as an essential element in fuel policy in the future.

(12) Local authorities should employ adequate smoke-control staffs with the proper training and technical qualifications.

(13) Arrangements should be made to secure effective co-ordination as between local authorities in the black areas and especially in Greater London.

(14) Development and research work on the many technical problems now outstanding should be undertaken or accelerated.

(15) A "Clean Air Council" should be established to co-ordinate and encourage research work and to review the progress made in implementing any new legislation.

During 1954 all the firms thought likely to be interested were sent copies of a summarized version of the Ridley Report on Fuel Economy and their attention was drawn especially to the National Industrial Fuel



Efficiency Service. This Service offers advice, usually free of charge in the first instance, on all aspects of economical fuel burning.

All local Women's Organisations were sent information on domestic fuel efficiency, extracted similarly from the Ridley Report. There is an increasing realisation of the extent to which domestic fuel appliances contribute to the pollution of the atmosphere.

Whilst work in relation to smoke problems has been restricted on account of staff shortages the following are examples of work done.

**Laundry—Smoke and Grit Nuisance**

Following representations regarding the emission of smoke and grit from their old boiler plant this firm installed an entirely new boiler together with a grit arrestor.

**Engineering Works—Grit Nuisance**

Complaints were received from a textile firm that was suffering from grit emissions traced to a nearby engineering works.

As a result of action by the Sanitary Inspection Department a chamber was constructed at the base of the offending chimney complete with a water spray to act as a barrier to the carry-over of grit into the atmosphere.

Complaints of smoke and grit .. ..	57
Smoke observations .. ..	49
Grit Plate Recordings .. ..	4
Visits to boiler plant following complaints and observations .. ..	85

**HOUSING CONDITIONS**

Slum Clearance is dealt with earlier by the Medical Officer of Health and particulars are given of the clearance areas represented during the year as well as a statement showing details of the houses condemned before the war and which are still occupied.

The official representation of the remainder of the Wharf Street Re-development area has meant a vast amount of inspectorial and administrative work in the Sanitary Inspection Department at one stage to the almost entire dislocation of all else except meat inspection. Enquiries as to ownership in the clearance areas alone necessitated the sending of nearly 3,000 letters.

# HOUSING STATISTICS

For year ended 31st December, 1954

## 1.—Unfit Dwelling Houses—Inspection.

(1) (a) Total number of dwelling houses inspected for housing defects (under Public Health or Housing Acts) .. ..	7,644
(b) Number of inspections made for the purpose .. ..	10,895
(2) (a) Number of dwelling houses (included under sub-head (1) above) which were inspected and recorded under the Housing Consolidated Regulations, 1925 and 1932 .. ..	927
(b) Number of inspections made for the purpose .. ..	1,826
(3) Number of dwelling houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation ..	886
(4) Number of dwelling houses (exclusive of those referred to under the preceding sub-heading) found to be not in all respects reasonably fit for human habitation .. .. .	2,649

## 2.—Remedy of Defects without Service of Formal Notices.

Number of defective dwelling houses rendered fit in consequence of informal action by Local Authority or their officers	2,329
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## 3.—Action under Statutory Powers.

### A—Proceedings under Sections 9, 10 and 16 of the Housing Act, 1936 :

(1) Number of dwelling houses in respect of which notices were served requiring repairs .. .. .	5
(2) Number of dwelling houses which were rendered fit after service of formal notices :	
(a) By owners .. .. .	2
(b) By Local Authority in default of owners .. ..	1

### B—Proceedings under Public Health Acts :

(1) Number of dwelling houses in respect of which notices were served requiring defects to be remedied .. ..	45
(2) Number of dwelling houses in which defects were remedied after service of formal notices :	
(a) By owners .. .. .	32
(b) By Local Authority in default of owners .. ..	—

### C—Proceedings under Sections 11 and 13 of the Housing Act, 1936 :

(1) Number of dwelling houses in respect of which Demolition Orders were made .. .. .	61
(2) Number of dwelling houses demolished in pursuance of Demolition Orders .. .. .	7

### D—Proceedings under Section 12 of the Housing Act, 1936 :

(1) Number of separate tenements or underground rooms in respect of which Closing Orders were made .. ..	1
(2) Number of separate tenements or underground rooms in respect of which Closing Orders were determined, the tenement or room having been rendered fit .. ..	—

Number of houses in respect of which Closing Orders were made under the Leicester Improvement Drainage and Markets Act, 1868, (This figure includes houses represented in 1953 but on which Orders were not made until 1954) .. .. .	75
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Number of houses in respect of which Closing Orders were made under Section 10 of the Local Government (Miscellaneous Provisions) Act, 1953 .. .. .	7
---	---

## SLUM CLEARANCE

Houses condemned before September, 1939, and still occupied :

(a) In "Areas"	..	..	..	..	..	189
(b) Individual	..	..	..	..	..	7

### Housing Repairs

The need for routine inspections for repairs is obvious if the list of houses suitable only for demolition is not to be increased substantially in a comparatively short time.

### Certificates of Disrepair

By the end of the year 52 applications had been received from tenants asking for confirmation of the fact that their respective houses were not in a reasonable state of repair.

All tenants of houses to which the Rent Acts apply are entitled to such a certificate at any time as well as following demands from their landlords for the payment of increased rent within the terms of the Housing Repairs (Increase of Rent) Regulations, 1954.

Every endeavour has been made to deal with such requests promptly in the interests of both landlords and tenants.

It is perhaps unfortunate that the letter of the law prevents a local authority delegating to any of their officers the power to issue certificates.

### Legal Proceedings

#### Failure to Supply Information

Two persons were summoned for failing to supply information as to ownership of houses. In each case the Bench imposed a fine of two pounds (£2).

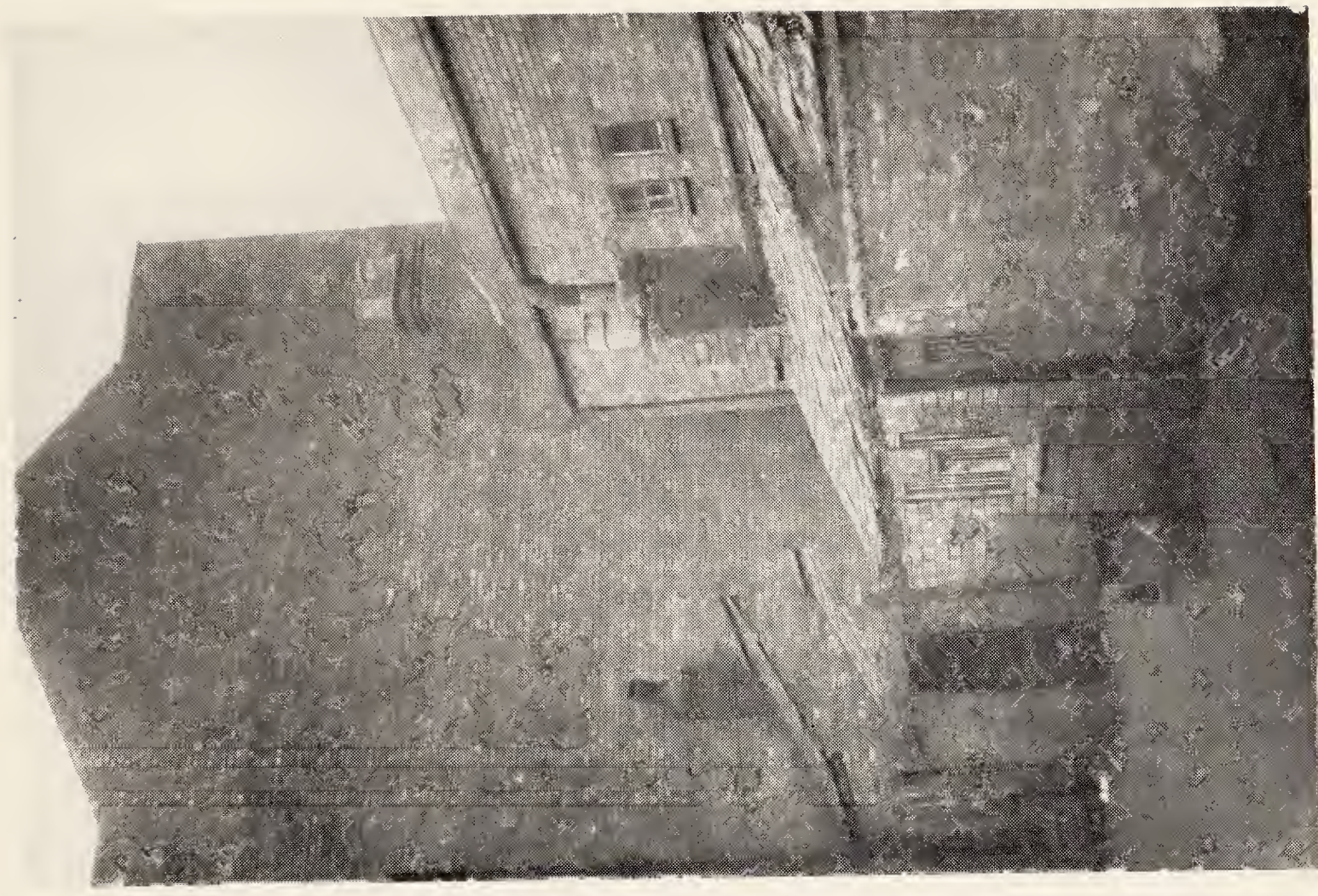
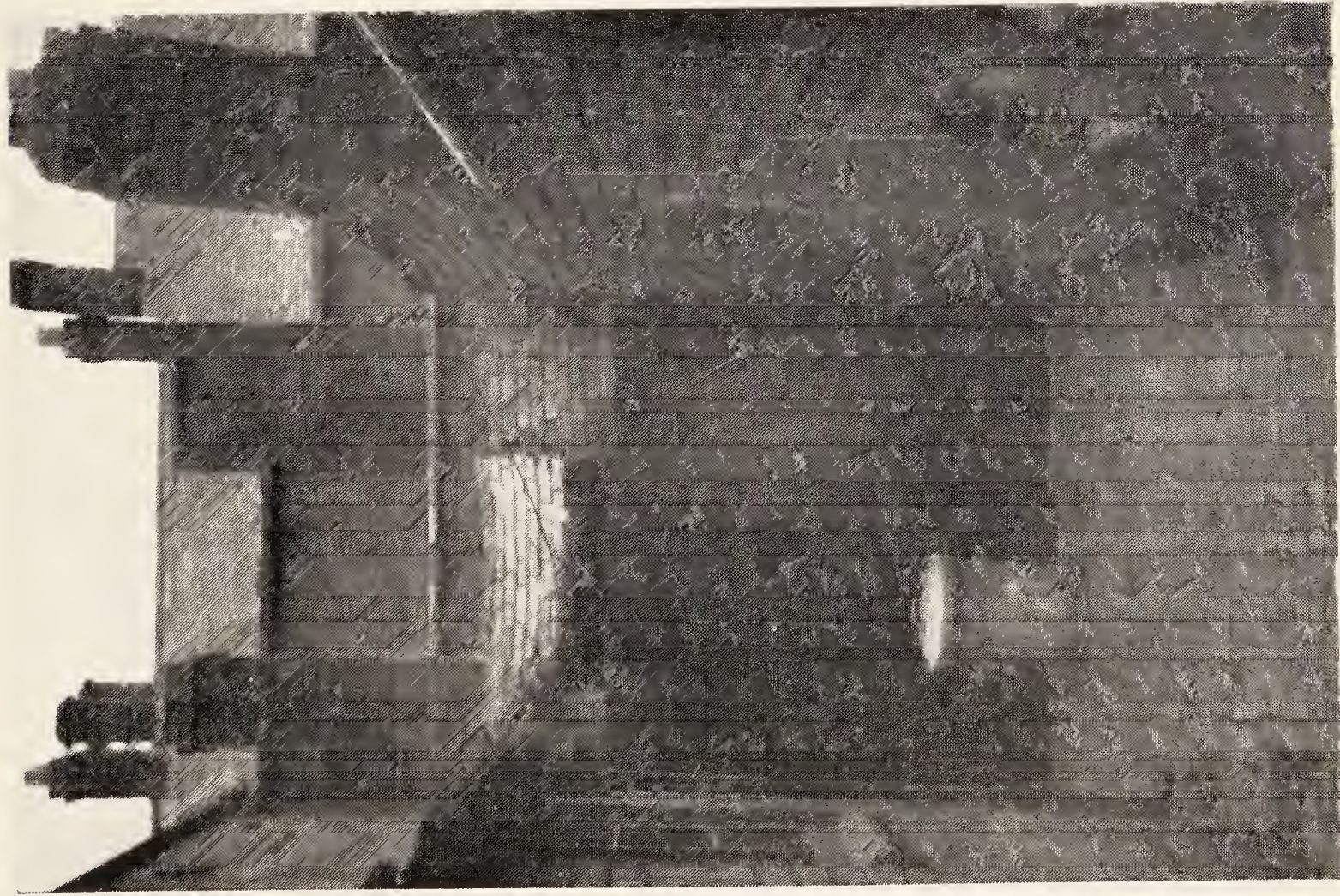
#### Illegal Letting of House

The owner of a house which was the subject of an official undertaking not to re-let was fined five pounds (£5) and ten shillings (10/-) costs for letting the house contrary to Section 14 of the Housing Act, 1936. Later a demolition order was made under Section 11 (4).

## FOOD

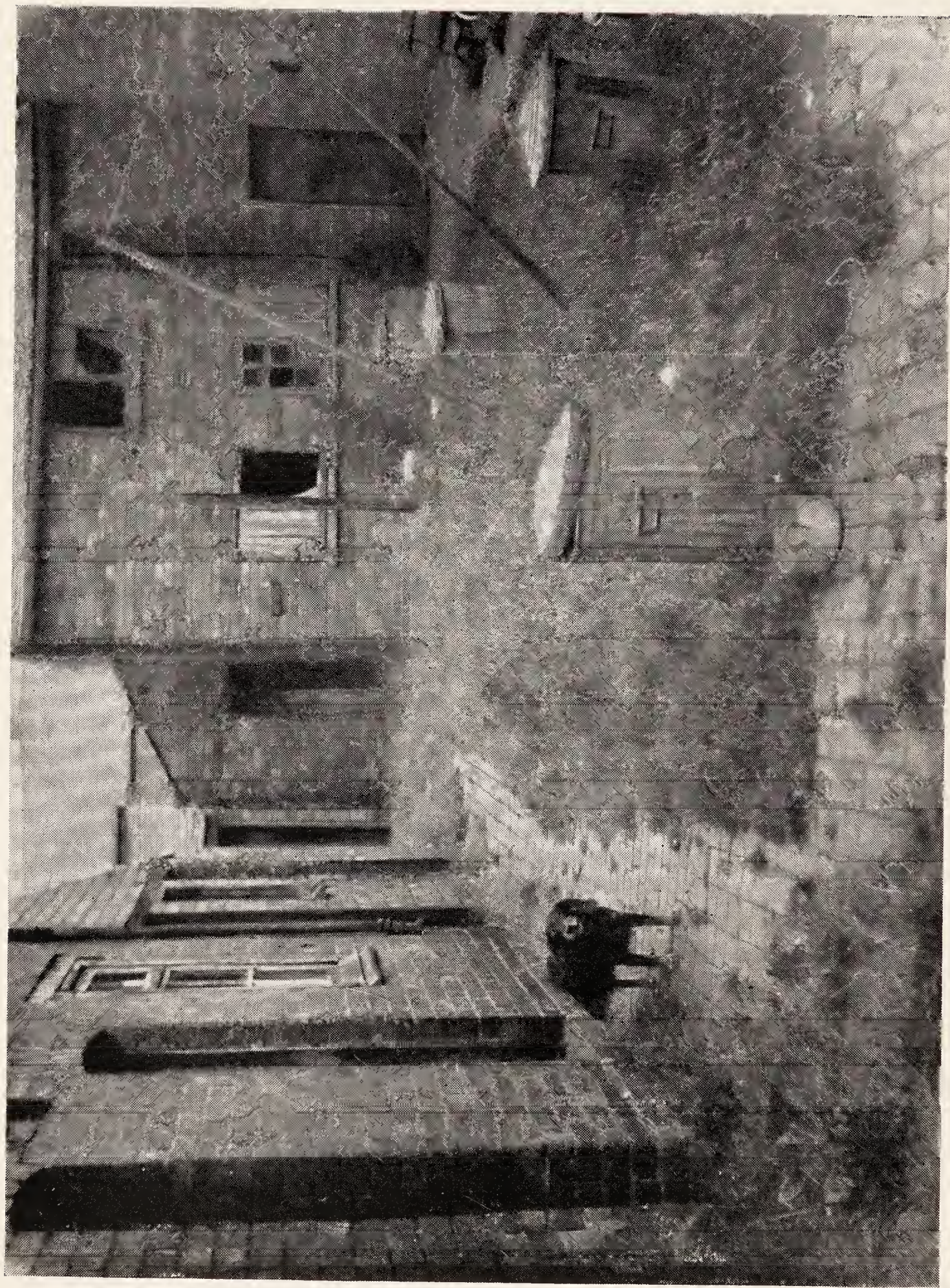
The sanitary inspectors are very much concerned in safeguarding food supplies produced or sold in Leicester. Broadly, the work falls into the following categories :





*Housing conditions in Wharf Street Re-development Area*





*Housing conditions in Wharf Street Re-development Area*



## **Meat Supplies**

Examination of all meat carcasses killed and dressed in the public abattoirs and other slaughterhouses.

To a lesser degree the examination of imported meat at cold stores and meat passing through wholesale premises in the City and at butchers' shops.

## **Food Hygiene**

Inspection of all premises where food is prepared, stored or sold, including manufacturing places, restaurant kitchens, and all food shops and stalls. Certain classes of food trading premises have to be registered by the local authority.

Manufacturing processes are essential to the production of meat products, flour and sugar confectionery, ice cream, etc. In some of these processes there are great risks of food poisoning so that the highest practicable standards of hygiene are essential to the public health. Both the premises and methods employed are of vital concern.

## **Food Quality, Description and Labelling**

Constant sampling over a wide range of foodstuffs must be carried out in order that a proper level of quality and food value is maintained in accordance with the law and the standards set by reputable manufacturers. Emphasis on sampling of commodities varies from time to time with changing trends and practices in the food trade.

Sampling also covers bacteriological purity of milk, ice cream and shellfish.

The inspectors are constantly looking out for misleading descriptions and labels on all articles of food which lend themselves to such treatment, for example, extravagant claims as to beneficial effects of consumption of the particular foods, inferior fruit labelled as being of a more choice variety, absence of statement as to country of origin, thus implying that the food is English.

## **Milk**

Milk is a food which is subject to particular legislative control. All dairies and milk shops have to be licensed annually, including small general stores selling a few bottles of milk daily.

In the large dairies both high and low temperature levels are prescribed for the heat-treatment of milk. The inspectors keep a check on



the recorded temperatures, bottle filling plant, and the bottle-washing processes as well as the general cleanliness which is essential at all times.

### **Vehicles for Conveyance or Sale of Food**

All such vehicles are subject to inspection whether they are used as mobile sales units (i.e. on new housing estates) or for delivery purposes.

### **Diseased, Unsound and Unwholesome Food**

The department is responsible for ensuring the proper disposal of all foodstuffs found to be unfit for human consumption.

### **Foreign Bodies in Food**

Investigation of circumstances in which extraneous items are found in foods.

## **MEAT SUPPLIES**

### **Slaughterhouses**

During the year under review the control of slaughtering reverted to the meat traders after many years of restriction and rationing. This involved the de-centralisation of slaughtering and local sanitary authorities were required to examine the slaughterhouses in their areas and license a sufficient number having regard to the local need as well as public health aspects of slaughtering.

In Leicester all the private slaughterhouses were inspected by the members of the Health Committee as well as the officers and, after due consideration, licences were granted in response to five of the 19 applications received. One of these was not taken up on account of the cost of the works necessary to conform to the Committee's standard.

Appeals were entered in four cases and were dismissed by the City Magistrates.

The facilities for slaughtering in Leicester are now :

9 Public Abattoirs at the Cattle Market let by the Markets Committee to :

Slaughterhouse No. 4—Pig Slaughterers (Leicester) Ltd.

Slaughterhouses No. 5 and 7—W. & J. Parker Ltd.

Slaughterhouse No. 9—C. Stiles

Slaughterhouses No. 11, 13, 14, 15 and 17—Leicester and District Meat Trading Co.

- 2 Private slaughterhouses in the Cattle Market grounds adjacent to the public abattoirs
- 2 Other private slaughterhouses
- 1 Public institution slaughterhouse

It will be seen that by its policy in dealing with problems arising from the derationing of meat the Health Committee has been able to keep the slaughtering fairly well concentrated. This facilitates the inspection of the meat.

### **Slaughterhouse Standards**

All the slaughterhouses in Leicester are now of a much higher standard of suitability than was generally the case before the war.

In addition to sound construction, hygienic internal surfaces, adequate supplies of hot and cold water, etc., each has a proper hanging and cooling room. This makes for cleaner meat as well as making it possible for all meat, blood, etc., to be cleared after an animal is killed and before another is led into the slaughterhouse.

At the public abattoirs this has been achieved by using one row of slaughtering rooms for killing and dressing and the opposite row as hanging and cooling rooms. These premises are meeting the needs of the City until a modern abattoir can be provided. This is an urgent necessity.

### **Condemned Meat**

Throughout the period of "control" the storage of condemned meat awaiting disposal was most unsatisfactory.

A special condemned meat house has now been provided and is situated as far as possible from the slaughtering and hanging rooms. Condemned meat and offals are removed immediately after condemnation by a workman engaged especially for the purpose. He is also responsible for colouring the condemned meat with the special dye used for the purpose. The meat house is always locked except when in use. An electric truck greatly facilitates the removal work.

### **Carcases affected with C. Bovis**

No whole carcase was condemned for this cause during the year. Local conditions were found in the following animals :

- 41 Oxen
- 13 Heifers
- 1 Bull
- 5 Cows

Total Number of Animals Slaughtered, 160,283, comprising :

		Cattle excluding Cows	Cows	Calves	Sheep and Lambs	Pigs	Totals
Public Abattoir	..	14,282	2,639	4,293	78,168	53,839	153,221
Private Slaughterhouses	..	516	222	102	3,509	403	4,752
Casualties	..	151	223	529	337	1,070	2,310
Totals	..	14,949	3,084	4,924	82,014	55,312	160,283



# Carcases Inspected and Condemned 1954

	Cattle excluding Cows	Cows	Calves	Sheep and Lambs	Pigs
Number killed .. .. .	14,949	3,084	4,924	82,014	55,312
Number inspected .. .. .	14,949	3,084	4,924	82,014	55,312
All diseases except Tuberculosis— Whole carcases condemned ..	3	19	22	58	65
Carcases of which some part or organ condemned .. .. .	1,457	300	15	1,009	1,654
Percentage of the number inspected affected with disease other than Tuberculosis .. .. .	16.79	27.17	.62	2.59	6.75
Tuberculosis only. Whole carcases condemned .. .. .	25	42	3	2	51
Carcases of which some part or organ condemned .. .. .	621	375	Nil	Nil	1,986
Percentage of the number inspected affected with Tuberculosis ..	7.64	33.9	Nil	Nil	8.16

Tabulated List of other defined Diseases and their incidence in Carcasses rejected

Disease	Cattle excluding Cows	Cows	Calves	Sheep and Lambs	Pigs	Total
Casualties ..	-	-	-	-	7	7
Dropsy ..	-	-	-	2	-	2
Dead Animals	-	-	-	5	7	12
Decomposition	-	-	-	1	-	1
Emaciation ..	-	-	2	13	2	17
Enteritis ..	-	-	-	-	1	1
Erysipelas ..	-	-	-	-	2	2
Fevered ..	1	1	7	2	5	16
Gangrene ..	-	-	6	1	1	2
Immature ..	-	-	-	1	-	7
Injury ..	1	-	-	4	-	5
Johnes ..	-	4	-	-	-	4
Jaundice ..	-	-	1	-	1	2
Mastitis ..	-	-	-	1	-	1
Moribund ..	-	-	-	-	1	1
Oedema ..	-	5	1	15	5	26
Pneumonia	-	-	-	-	1	1
Pyæmia ..	-	1	1	-	4	6
Pleurisy ..	-	-	-	-	1	1
Pyrexia ..	-	-	-	-	1	1
Peritonitis ..	-	-	-	1	1	2
Rickets ..	-	-	1	-	-	1
Septic Arthritis	-	-	-	-	2	2
Septic Peritonitis	-	-	-	-	1	1
Septic Enteritis	-	-	-	1	-	1
Swine Fever	-	-	-	-	11	11
Septic Pericarditis	-	2	-	-	1	3
Septic Pneumonia	-	-	1	2	-	3
Septicaemia	1	4	-	5	10	22
Septic Mastitis	-	1	-	4	-	5
Uraemia ..	-	1	-	-	-	1
Totals ..	3	19	22	58	65	167

Total Weights of Meat Condemned.

	British Meat			Imported Meat			British Offal			Imported Offal			Totals		
Public Abattoir, Cattle Market	..	T.	C. Qrs. lbs.	T.	C. Qrs. lbs.	T.	C. Qrs. lbs.	T.	C. Qrs. lbs.	T.	C. Qrs. lbs.	T.	C. Qrs. lbs.	T.	C. Qrs. lbs.
		55	7 1 14	0	14 3 0	84	7 3 3	0	1 3 23	140	11 3 12				
Private Slaughterhouses		4	7 1 24	0	0 0 0	7	2 3 24	0	0 0 0	11	10 1 20				
Wholesale Meat Depots		0	0 0 0	0	0 3 9	0	0 0 0	0	1 0 21	0	2 0 2				
Totals ..	..	59	14 3 10	0	15 2 9	91	10 2 27	0	3 0 16	152	4 1 6				

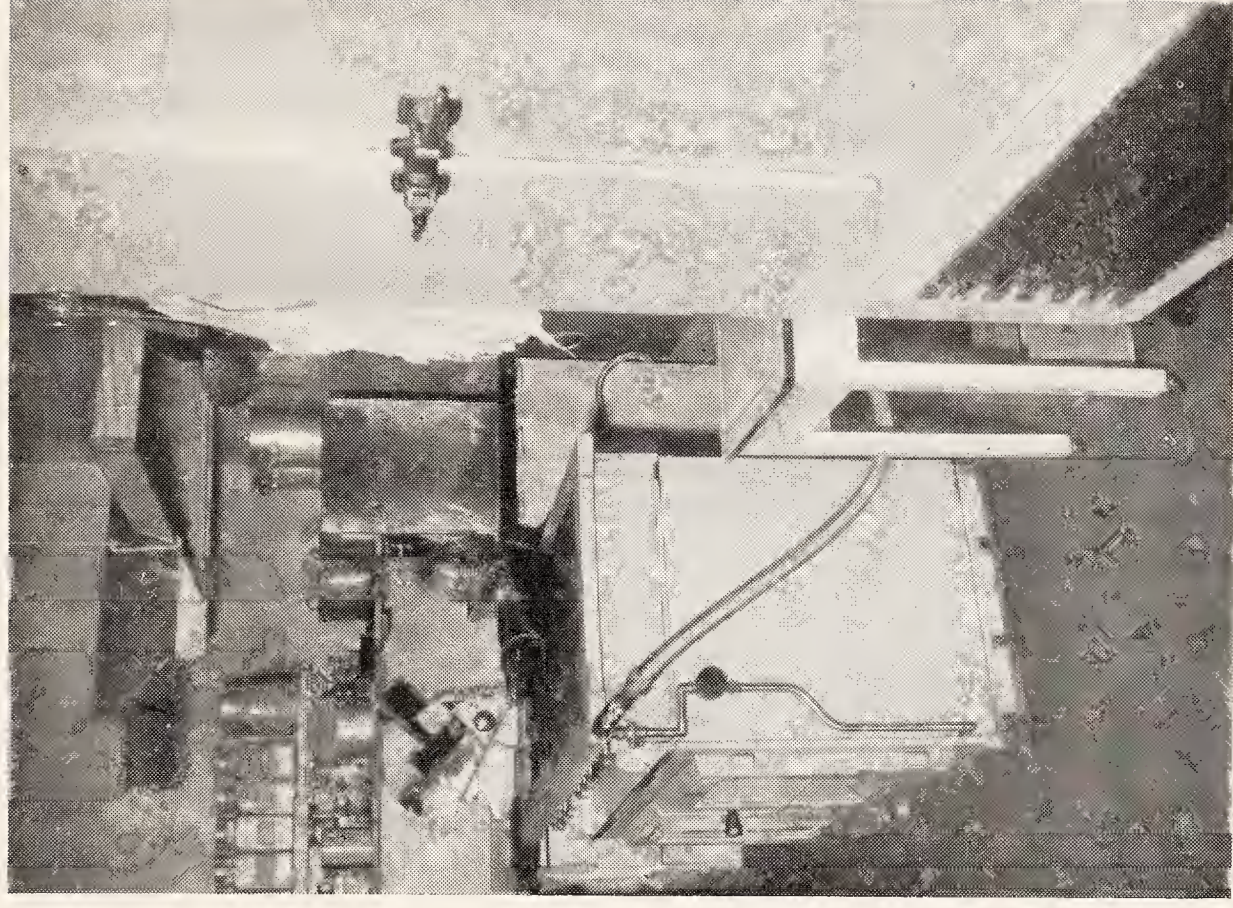
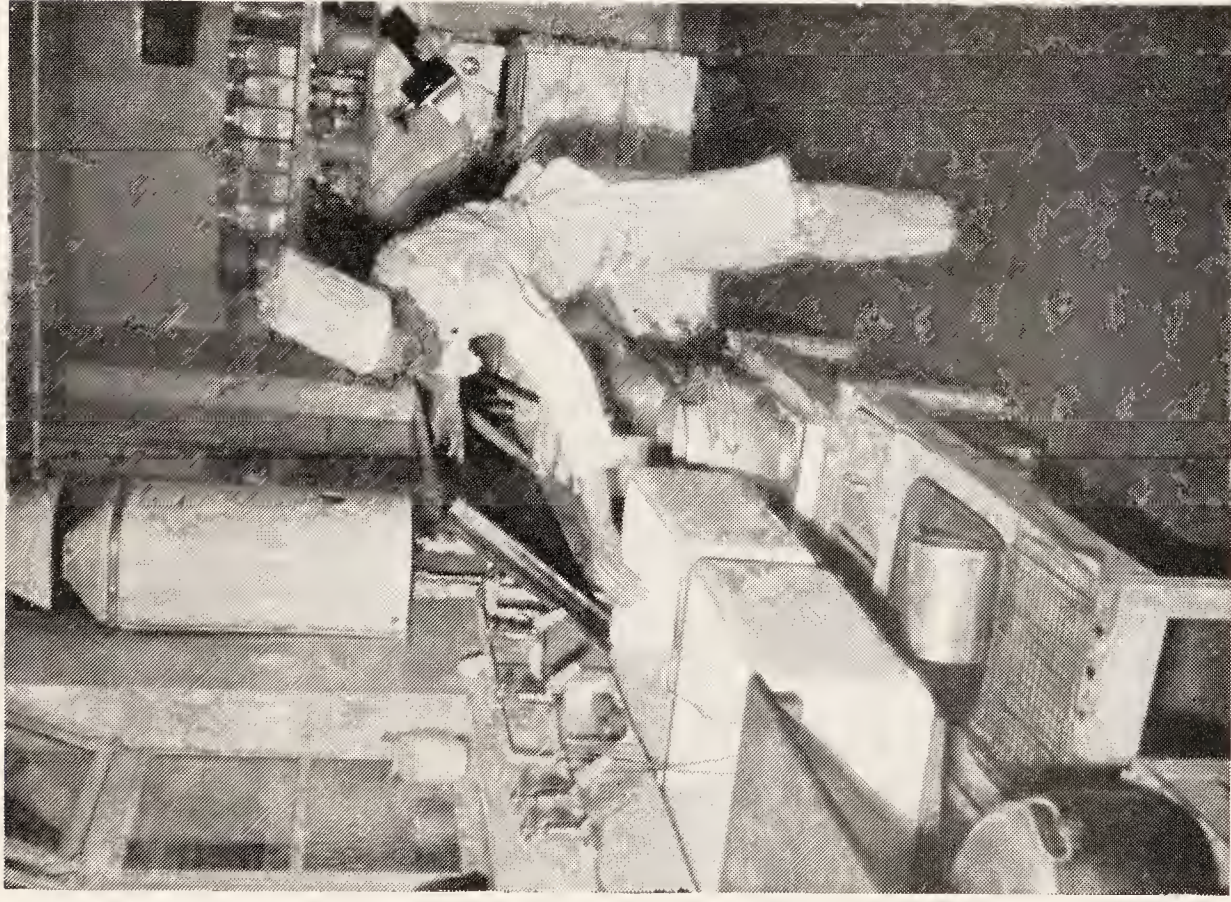


## FOOD UNFIT FOR HUMAN CONSUMPTION

The range of foodstuffs subject to inspection is reflected in the following list of foods condemned :

Tons Cwt. Qrs. Lbs.					Other Foodstuffs, etc.	
<b>Fish</b> (excluding					Almond Paste	.. 92 lb.
Shell Fish) ..					Bacon	.. .. 175 lb.
					Biscuits	.. .. 84 lb.
					Butter	.. .. 11 lb.
					Cake	.. .. 7 lb.
<b>Shell Fish :</b>					Cakes	.. .. 3,318
Crabs .. ..					Cake Mixture	.. 173 packets
					Cereals	.. .. 34 lb.
Escallops .. ..					Cheese	.. .. 359 lb.
					Chocolate	.. .. 4 lb.
Mussels .. ..					Coconut	.. .. 20 packets
					Cream	.. .. 5 gall.
Other Shell Fish					Cucumbers	.. .. 5
					Eggs (dried)	.. .. 71 lb.
<b>Fruit</b> .. ..					Essences	.. .. 1,099 packets
					Fish .. ..	.. .. 980 tins
					Fish Cakes	.. .. 200
<b>Meat :</b>					Frozen Foodstuffs	
					(miscellaneous)	.. .. 28 lb.
English .. ..					Fruit (dried)	.. .. 1,272 lb.
					Fruit	.. .. 41 jars
Imported .. ..					Fruit .. ..	.. .. 17,570 tins
					Jam .. ..	.. .. 8 jars
<b>Offal :</b>					Jellies.. ..	.. .. 76 packets
					Lentils	.. .. 54 lb.
English .. ..					Meat .. ..	.. .. 2,634 tins
					Meat .. ..	.. .. 697 jars
Imported .. ..					Meat (cooked)	.. .. 212 lb.
					Milk .. ..	.. .. 1,566 tins
<b>Vegetables</b> ..					Mustard and Cress	.. .. 540 punnets
					Nuts .. ..	.. .. 113 lb.
					Pasties, etc.	.. .. 132 lb.
					Pickles, etc.	.. .. 207 jars
					Pork Pies	.. .. 45 lb.
					Potato Powders	.. .. 96 packets
					Puddings (Christmas)	11
<b>Poultry, Game, etc.</b>					Sausage	.. .. 306 lb.
Chicken and Fowls ..					Sugar.. ..	.. .. 3,835 lb.
					Suet .. ..	.. .. 39 packets
Hares .. ..					Sweets	.. .. 195 lb.
					Vegetables	.. .. 8,153 tins
Rabbits .. ..					Yeast .. ..	.. .. 3,891 lb.





*Small Restaurant Kitchen*

Showing means of moving equipment for cleaning purposes. All tables, cupboards, cookers and refrigerator are on castors.





# *City of Leicester Clean Food Guild*

## *This is to Certify that*

.....  
.....  
*is a member of the*

*City of Leicester Clean Food Guild*

*having agreed to maintain and observe the*

*CODE of practice laid down*

*by the Guild*



.....Chairman

.....Secretary

THIS CERTIFICATE REMAINS THE PROPERTY OF THE GUILD

*Reproduction of Clean Food Guild Certificate*



## FOOD HYGIENE

The public demand for improved standards in food handling shows no diminution. Further, it is realised that legislation and enforcement alone are not the answers to the problem so that it is not surprising to find that in the progress through the House of Commons of the Food and Drugs (Amendment) Bill there was general approval for the principle of Codes of Practice for the food trades as well as regulations enforceable by Law.

The reaction of food traders to public opinion has been noticeable particularly in the increased demand for lectures and talks to traders' groups and employees. This approach has been encouraged and despite the shortage of staff in the department no request of this nature has been refused.

Improved food hygiene can only be achieved with the willing co-operation of all who handle food and it is well to remember that the consumer has a responsibility as well as the trader and his employees. The problem is complicated and involved as the training of young persons in personal hygiene depends primarily on the availability of satisfactory sanitary and washing facilities in their own homes and, to a less extent, in the schools they attend.

### City of Leicester Clean Food Guild

This body was set up after consultation with representatives of all the various food trades carried on in the City.

An inaugural meeting was held in January when Mr. Morley Parry, Food Hygiene Officer of the Ministry of Food, addressed a large representative audience under the Chairmanship of the Lord Mayor (Alderman C. R. Keene).

The wisdom of the Health Committee in this direction is seen in the earlier reference to the fact that Codes of Practice are now to become part of the National Policy in regard to food hygiene.

Applications for membership at 31st December, 1954, were as shown below. Since that date interest has increased considerably.

Trade	Applications	Certificates granted
Bakers and Confectioners .. ..	16	10
Catering Establishments .. ..	20	12
Fishmongers and Fish Fryers .. ..	7	2
Fruiterers and Greengrocers .. ..	7	3
Grocers and General Stores .. ..	40	16
Ice Cream .. ..	2	2
Manufactured Meat Products .. ..	5	5
Retail Butchers .. ..	22	4
Sweets .. ..	4	3
Totals .. ..	123	57

Codes of Practice in Operation :

- Bakers and Confectioners
- Catering Establishments
- Fishmongers and Fish Fryers
- Fruiterers and Greengrocers
- Grocers and General Stores
- Ice Cream
- Licensed Premises
- Manufactured Meat Products
- Retail Butchers
- Sweet Shops
- Mobile Vehicles

ICE CREAM PREMISES, 1954

For Manufacture, Storage and Sale	For Sale of Prepacked only	For Sale of Double Wrapped only	Prepacked and Loose	Total
Hot Mix .. 10				
Cold Mix .. 4				
Freezing and Sale .. 2				
Storage only .. 4				
	606	75	9	710
Total .. 20	606	75	9	710

## BACTERIOLOGICAL EXAMINATION OF SAMPLES OF ICE CREAM

Ninety samples of ice cream for examination to ascertain the bacteriological standard were taken during the year with the following results :

Month	Prepacked or Loose	Good		Suspect	Unsatisfactory	Total
		Grade I	Grade II	Grade III	Grade IV	
March ..	Prepacked	1	—	—	—	1
April ..	Prepacked	4	—	—	—	4
	Loose	5	—	—	—	5
May ..	Prepacked	4	1	—	—	5
	Loose	2	—	1	—	3
June ..	Prepacked	7	—	—	—	7
	Loose	11	—	1	1	13
July ..	Prepacked	7	—	—	—	7
	Loose	3	4	—	1	8
August ..	Prepacked	3	2	—	—	5
	Loose	7	2	—	—	9
September ..	Loose	14	3	5	1	23
Totals ..		68	12	7	3	90

### Unsuitable Milk Powder

Of the 23 samples taken during September, 15 were taken from one manufacturer—14 during process of manufacture, nine Grade I, five Grade III, and one Grade IV. During the examination and sampling of ice cream from the plant, despite the maintaining of the proper temperature of pasteurisation, Grade III ice cream was obtained throughout. This presented a problem, but on examination of the ingredients it was found that the milk powder being used contained spores of non-harmful bacteria which were not destroyed by pasteurisation. The proprietor of the business voluntarily agreed to discontinue use of the milk powder and on re-examination of the resulting product, Grade I ice cream was obtained throughout.

## CHEMICAL EXAMINATION OF SAMPLES OF ICE CREAM

The chemical examination of ice cream was continued during the year and 77 samples were submitted for analysis.



The average chemical composition of ice cream sold in the city is as follows :

		Fat	Milk Solids-not-Fat	Sugar
Prepacked ice cream	..	10.2%	10.8%	14.0%
Loose ice cream	..	7.8%	10.5%	14.6%
Legal minimum	..	5.0%	7.5%	10.0%

One informal sample was reported as containing only 4.9% Fat, but the formal sample taken as a follow-up was genuine.

### General Observations

The ice cream trade generally had a very poor season during 1954 due to the abnormally bad weather. The standard of hygiene was well maintained in spite of all the frustration and set-backs, the co-operation between the Health Department and the trade generally was always good.

All unsatisfactory samples were investigated and every assistance was given to the Department's Officers during investigations. Advice given by the officers was well received and acted upon.

### Catering Premises

The hygiene of snack bars, restaurants and hotel kitchens has continued to receive attention during the year and several notable instances of improvements have been brought about.

The food handling byelaws, together with the Department's Code of Practice are showing their value in the steady increase in the provision of better equipment, such as separate handwashing facilities in preparation rooms, impervious topped tables, stainless steel double sinks and increased supplies of hot water.

The biggest difficulties with hotel kitchens and like arise when the business outgrows the kitchen space. When this occurs nothing short of reconstruction will produce satisfactory working space and this is not always possible.

The inspection of catering arrangements at hospitals has continued.

### Lectures and Demonstrations

Fifty-three lectures and demonstrations have been given during the year, mainly by Miss Shute, Food Hygiene Officer, and Messrs. Beresford and Stacey, Cafes and Restaurants and Dairies Inspectors, respectively.

The Department was actively engaged in the City Health Department's exhibits at the Abbey Park Show and the Home Life Exhibition at the Granby Halls. Both exhibits attracted a great deal of attention and many questions on food hygiene.

### Food Premises

			Inspected	Re-inspected	Total
Fish	..	..	59	1	60
Fruit	..	..	64	9	73
Meat	..	..	182	2	184
Other Food Shops	..		530	511	1,041
Shops Acts		..	32	1	33

				Contraventions	Work completed
Light	..	..	..	7	7
Heating	..	..	..	2	1
Washing accommodation			..	17	16
Forms required	..	..	..	15	14
Hot water required	..	..	..	139	153
Cleaning and redecorating			..	11	11
Other defects	..	..	..	8	11
Food Protection	..	..	..	21	21
Protective Clothing	..	..	..	2	2

The above table shows the extent to which premises concerned with food handling were inspected during 1954. The number of inspections carried out and the improvements effected represent but a fraction of the total number of such premises in the City and of the work which it is the local authority's duty to perform under the Food and Drugs Act, 1938.

### Food and Drugs—Quality

The following tables show the amount of food sampling carried out by the department during the past five years; all samples are forwarded either to the City Analyst or to the Director of the Public Health Laboratory at Groby Road Hospital. As will be seen there is also some sampling of articles other than food.

# Food and Drugs Act, 1938

## NUMBER OF SAMPLES TAKEN FOR CHEMICAL ANALYSIS

1950	1951	1952	1953	1954
1,016	1,233	1,028	1,220	1,077

## Legal Proceedings

Acts, Byelaws or Regulations under which proceedings were instituted	Default or Offence	Fines £ s. d.	Costs £ s. d.
Contravention Food and Drugs Act, 1938, Section 3	Selling to the prejudice of the purchaser hot milk not of the quality demanded : Fat deficiency 69.3% Solids-not-Fat deficiency 39.5% Added Water 38.1% ..	5 0 0	—
Do. ..	Selling to the prejudice of the purchaser hot milk not of the quality demanded : Fat deficiency 66% Solids-not-Fat deficiency 33.3% Added water 33.9% ..	10 0 0	—
Do. ..	Selling to the prejudice of the purchaser hot milk not of the quality demanded : Fat deficiency 7.33% Solids-not-Fat deficiency 14.2% Added water 12.8% ..	5 0 0	—
Do. ..	Selling to the prejudice of the purchaser hot milk not of the quality demanded : Fat deficiency 40% ..	10 0 0	—
Do.	Selling to the prejudice of the purchaser hot milk not of the quality demanded : Solids-not-Fat deficiency 10.2% Added water 11.32% ..	10 0 0	—
	Vendor .. ..	1 0 0	—
	Assistant .. ..	1 0 0	—
Milk and Dairies Regulations, 1949	Dirty milk bottle .. ..	10 0 0	10 0



### Summary of Sampling 1954

Milk .. .. .	362
Grocery .. .. .	374
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Wines and Spirits .. .. .	11
Soft Drinks .. .. .	11
Meat Pastes .. .. .	4
Sausages .. .. .	32
Drugs .. .. .	206
<hr/>	
Shell Fish .. .. .	23
Fertilisers and Feeding Stuffs .. .. .	50
Rag Flock Act .. .. .	3

### MILK AND DAIRIES

The following table shows the number of licences granted in respect of milk produced and sold under special designations.

The Pasteurisers and Sterilisers Licences are in respect of five dairies which are the sources of the largest portion of the milk samples submitted for examination or analysis. Pasteurised milk is sampled daily and all the raw designated milk arriving at the dairies from many farms is sampled systematically. There has also been some sampling of undesignated raw milk with a view to getting some idea of the cleanliness of production of all milks coming into Leicester.

The designation "Accredited" was discontinued in accordance with the Milk and Dairies Special Designation (Raw Milk) Regulations, 1949, on 1st October, 1954.

There is no doubt that in the near future Leicester will be part of an area in which only heat-treated milk or tuberculin tested raw milk may be sold.

### Licences for the Sale of Milk under Special Designations

#### MILK (SPECIAL DESIGNATIONS) (PASTEURISED AND STERILISED MILK) REGULATIONS, 1949

and

#### MILK (SPECIAL DESIGNATIONS) (RAW MILK) REGULATIONS, 1949

Dealer's (Pasteuriser's) Licence .. .. .	5
Dealer's (Steriliser's) Licence .. .. .	1
Dealer's Licence authorising the sale of "Tuberculin Tested" Milk .. .. .	54
Dealer's Licence authorising the sale of "Accredited" Milk .. .. .	18

Dealer's Licence authorising the sale of "Sterilised"	
Milk .. .. .	341
Dealer's Licence authorising the sale of "Pasteurised"	
Milk .. .. .	321
Dealer's Supplementary Licence authorising the sale of	
"Pasteurised" Milk .. .. .	3
Dealer's Supplementary Licence authorising the sale of	
"Tuberculin Tested" Milk .. .. .	1
Dealer's Supplementary Licence authorising the sale of	
"Sterilised" Milk .. .. .	1

## Milk (Special Designations) Regulations, 1949-1954

NUMBER OF SAMPLES TAKEN FOR BACTERIOLOGICAL EXAMINATION

1950	1951	1952	1953	1954
1,334	1,237	1,511	1,630	1,670

In addition, 160 samples of raw undesignated milk were examined. Daily Dairy Control samples for pasteurisation efficiency—1,260.

### Tubercle Bacilli in Milk

The number of samples of milk submitted for the animal inoculation test is governed by the number of guinea pigs available.

During 1954, 31 samples were submitted for this test and one was reported as containing Tubercle Bacilli. The case was referred to the Ministry of Agriculture and Fisheries for action. Bulk samples were obtained at the farm but proved negative.

During the year *brucella abortus* was found in a herd of cows in the City and the powers contained in the Milk and Dairies Regulations, 1949, were invoked requiring the milk to be heat-treated before sale. Consequently, all the milk produced at the farm for sixteen days was pasteurised. Normally the milk is sold raw.

Individual samples were taken from each cow in the herd and two cows were found to be giving infected milk. They were removed from the herd.

Throughout the investigation there was the closest co-operation between the Pathological Laboratory, the farmer, veterinary officer, and the Dairies Inspector of this department.

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